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Assim = Art. Eliminado

Assim = Art. Novo

Art. 1 - VIATURAS ADMITIDAS

As constantes no quadro seguinte detentoras de ficha de homologação FIA / FPAK e suas extensões, válidas para o ano em curso e ainda as viaturas em conformidade com o art.2.7.1.c do CDI.

1.1 Serão admitidas ainda as viaturas FIA/WRC, em conformidade com o descrito no Art. 4.2.2 do Regulamento Desportivo do CPR. Terão, no entanto, de se apresentar em conformidade com a regulamentação de segurança FIA em vigor.

CATEGORIAS		GRUPOS/CLASSES		REGULAMENTOS	PESO	CAMPEONATOS					
FIA	CPR	PROMO START CMC/CAR	VIATURAS	ARTIGO/ANEXO/ANO	MINIMO/KG	CPR	PROMO	START	CMCR	CAR	
RALLY2	RC2	X5/16	GRUPO RALLY2	Grupo Rally2 conforme Art.261 Anexo J 2021	1230	X			X	X	
		X5/16	S2000 – RALLY 2.0 Atmosférico	Viaturas Super 2000 conforme Art.254 A Anexo J 2013	1200	X			X	X	
	RC2K	X5/16	GRUPO RALLY2 kit (VR4K)	Viaturas equipadas com R4 kit conforme Art.260 E Anexo J 2021	1230	X			X	X	
	RC2N	P3/X3	GRUPO N NR4 + 2000cc	Viaturas Grupo N conforme Art.254 Anexo J 2019	FH	X	X			X	X
		P3/X3	GRUPO N VR4	Viaturas Grupo N conforme Art.260 Anexo J 2019	1300	X	X			X	X
R-GT	R-GT	X5/16	R-GT FIA	Viaturas Grupo RGT conforme Art.256 Anexo J 2019/2021	PT RGT (FIA)**	X			X	X	
	R-GTN	X5/16	R-GT FPAK	REG. FPAK (CPR-GT) +FH	Art.2 do Reg. Técnico CPR	X			X	X	
RALLY3	RC3	X5/16	RALLY3 Atmosférico + 1390cc até 2000cc e Turbo + 927cc até 1620cc	Viaturas Grupo Rally3 Homologação a partir 01/01/2021 conforme Art.260 Anexo J 2021	1210	X			X	X	
	R3N	X5/16	TOYOTA GR YARIS RZ	FH FPAK/RFeDa	1300	X			X	X	
RALLY4	RC4	X5/16	RALLY4 Turbo + 927 até 1333cc	Viaturas Grupo Rally4 Homologação a partir 01/01/2019 conforme Art.260 Anexo J 2021	1080	X			X	X	
		P1/P2	RALLY4 Atmosférico + 1390cc até 2000cc	Viaturas Grupo R2 Homologação antes de 31/12/2018 conforme Art.260 Anexo J 2018	1080	X	X	X	X	X	
	P2	R3 Atmosférico + 1600cc até 2000cc E Turbo + 1067cc até 1333cc	Viaturas Grupo R Homologação antes de 31/12/2019 conforme Art.260 Anexo J 2019	1080	X	X	X	X	X	X	
		R3 Turbo + 1620cc (nominal)	Viaturas Grupo R Homologação antes de 31/12/2019 conforme Art.260 D Anexo J 2019	1080	X	X	X	X	X	X	
	P2	GRUPO A + 2000cc	Viaturas Grupo A conforme Art.255 Anexo J 2019	1080	X	X	X	X	X	X	
RALLY5	RC5	P2	RALLY5 Atmosférico + 1600cc e Turbo + 1067cc	Viaturas Grupo R1 Homologação antes de 31/12/2018 conforme Art.260 Anexo J	1030/1080	X	X	X	X	X	
	RC5N	P2/3	KIA PICANTO	Conforme Regulamento Troféu	FH	X	X	X	X	X	
E-RALLY	E-RALLY	X5/16	VIATURAS DE PROPULSÃO – ENERGIAS ALTERNATIVAS	FIA	FH	X	X	X	X	X	

VIATURAS	REGULAMENTOS ARTIGO/ANEXO/ANO	PESO MINIMO[KG]	GRUPOS/CLASSES
GRUPO RALLY2	Art.261 Anexo J 2021	1230	RC2
S2000 – RALLY 2.0 Atmosférico	Art.254A Anexo J 2013	1200	RC2
GRUPO RALLY2 kit (VR4K)	Art.260 E Anexo J 2021	1230	RC2K
GRUPO N NR4 + 2000cc	Art.254 Anexo J 2019	FH	RC2N
GRUPO N VR4	Art.260 Anexo J	1300	RC2N
R-GT FIA	Art.256 Anexo J 2019/2021	PT RGT (FIA)*	RGT
R-GT FPAK	REG. FPAK (CPR-GT) + FH	Reg. Téc. CPRGT	R-GTN
RALLY3 Atmosférico + 1390cc a 2000cc e Turbo + 927cc a 1620cc	Desde 01/01/2021 Art.260 Anexo J 2021	1210	RC3
TOYOTA GR YARIS RZ	FH	1300	RC3N
RALLY4 Turbo + 927 a 1333cc	Viaturas Rally4 FH desde 01/01/2019 - Art.260 Anexo J 2021	1080	RC4
RALLY4 Atmosférico + 1390cc a 2000cc	Viaturas R2 FH desde 31/12/2018 Art.260 Anexo J 2018	1080	RC4
R3 Atmosférico + 1600cc a 2000cc E Turbo + 1067cc a 1333cc	Viaturas R3 FH desde 31/12/2019 Art.260 Anexo J 2019	1080	RC4
R3 Turbo + 1620cc (nominal)	Viaturas R3T FH desde 31/12/2019 Art.260 D Anexo J 2019	1080	RC4
GRUPO A + 2000cc	Viaturas Grupo A conforme Art.255 Anexo J 2019	1080	RC4
RALLY5 Atmosférico + 1600cc e Turbo + 1067cc	Viaturas Grupo R1 conforme Art.260 Anexo J	1030/1080	RC5
KIA PICANTO	Conforme Regulamento Troféu	960	RC5N
VIATURAS DE PROPULSÃO ENERGIAS ALTERNATIVAS	FIA	FH	E-Rally

* - Conforme passaporte técnico RGT (FIA)

- A atribuição da classe para as viaturas dispo de motores sobrealimentados ou com compressor volumétrico, é estipulada pela cilindrada resultante do coeficiente de correção aplicado à sua cilindrada nominal.

Tabela de Viaturas de Ralis FPAK CPR 2023 4"
*** conforme passaporte técnico RGT (FIA)*
ANEXO A - Tabela de Viaturas de Ralis FPAK 2024

1.2 - Quadro de viaturas admitidas para o WRC/ERC/ERT 20234

CLASSE	GRUPO	WRC	ERC/ERT
RC1	Rally1	☑	
RC2	Rally2	☑	☑
	Rally2 Kit	☑	☑
	NR4 + 2.0		☑
	S2000 – Rally R4		☑
RGT	RGT	☑	☑
RC3	Rally3	☑	☑
RC4	Rally4	☑	☑
	R2	☑	☑
	R3	☑	☑
	Grupo A até 2.0		☑
RC5	Rally5	☑	☑
	R1	☑	☑

☑ = Admitidos

https://www.fia.com/sites/default/files/fia_rally_car_pyramid_brochure_-_february_2021.pdf

1.3 - Viaturas admitidas para participar no Challenge R5/S2000

Homologação FIA	Marca/Modelo	Validade FH (+8 anos)
A 5748	Ford Fiesta MK1	2024
A 5743	Peugeot 208 T16	2024
A 5739	Citroen Ds3	2024
A5705	Peugeot 207 S2000	2014 (2024)
A5729	Ford Fiesta S2000	2021 (2029)
A5721	Skoda Fabia S2000	2019 (2027)
A5691	Fiat Punto S2000	2017 (2025)

Art. 2 - PESOS

2.1 - O peso mínimo da viatura é considerado: sem 1º condutor e 2º condutor/navegador, sem o respetivo equipamento e com no máximo uma roda sobressalente, ~~conforme quadro acima~~ tabela do Art. 1.

No caso em que duas rodas sobressalentes são transportadas na viatura, a segunda roda terá de ser retirada antes de efetuar a pesagem.

2.2 - O peso mínimo da viatura ~~nas condições do Art. 255-4.1; 260-201.3 & 4 & 5; 260-201.3 & 4; 260-201.4 e 261-201.4~~ quando com a equipa a bordo (piloto + copiloto + equipamento completo) é definido ~~pelo quadro acima~~ pela tabela do Art.1 somando 160 Kg.

Para S1600 e Kit-Car até 1600 cm³ ~~(Art. 255-6-2) é definido pelo quadro acima 150 Kg~~ é definido segundo a tabela do Art.1º seu peso é definido pelo Art.255-6.2 do anexo J 2019, somando 150Kg quando com a equipa a bordo.

2.3 - A utilização de lastro é autorizada de acordo com o Art. 252-2.2 do Anexo J.

Art. 3 - EQUIPAMENTO SEGURANÇA

3.1 - Viatura - conforme o disposto no Art. 253 do Anexo J.

3.1.1 - Sistemas Instalados (Extinção automática)

a) Em conformidade com o Art.253-7.1.1 do Anexo J ~~de 2020~~ atual. As viaturas **Rally 2, 3, 4 e 5** assim como as viaturas **R1, R2, R3 e R-GT FIA** que participem em provas FIA (WRC/ERC/ERT/IRT), estão obrigadas a utilizar o sistema com a norma FIA 8865-2015 (LT nº 52),

3.1.2 - Sistemas Instalados (Extinção manual)

Em provas de campeonatos FIA (WRC e ERT) é obrigatório o uso dois extintores manuais conforme Art.253 - 7.3.1 do Anexo J.

Até 01.01.2026, pelo menos um dos extintores manuais tem de ser adequado a alta voltagem (Art.253 - 18.23 do Anexo J), depois dessa data passa a ser obrigatório serem os dois extintores manuais para alta voltagem.

A partir de 01.01.2025 o presente artigo irá abranger todas as provas do Campeonato Portugal de Ralis. nomeadamente nas seguintes provas do CPR:

Rali Serras de Fafe, Rali dos Açores, Rali Terras D'aboboreira, Vodafone Rali de Portugal, Rali Vinho da Madeira.

~~b) Para o ano de 2023 será obrigatório o uso do sistema instalado (norma FIA 8865-2015 - LT nº 52) em todas as provas do CPR.~~

3.2 - 1º condutor e 2º condutor/navegador

3.2.1 - Capacetes - com homologação válida e em conformidade com o disposto pelo Anexo L ao CDI, Capítulo III - Art. 1. Normas FIA standard (lista técnica FIA nº 25) e/ou normas FIA 8860-2004 ou FIA 8860-2010 (lista técnica FIA nº33), FIA 8858 (lista técnica FIA nº 41), FIA 8859-2015 (lista técnica FIA nº49) e FIA 8860-2018 (lista técnica FIA nº69).

3.2.2 - Fato de competição, roupa interior, balaclava, luvas e sapatos - com homologação válida e em conformidade com o disposto pelo Anexo L ao CDI, Capítulo III Art. 2 - norma FIA 8856-2000 (lista técnica FIA nº 27) ou FIA 8856-2018 (lista técnica FIA nº 74). Não é obrigatório o uso de luvas para o copiloto.

Em provas FIA WRC (Rali de Portugal) é obrigatório o uso de roupa ignífuga de acordo com a norma FIA 8856-2018 (Lt. nº 74)

3.2.3 - Sistema de retenção de cabeça (HANS-FHR) - com homologação válida e em conformidade com o

~~disposto pelo Anexo L ao CDI, Capítulo III – Art. 3. Normas FIA 8858-2002 e/ou FIA 8858-2010 (lista técnica FIA nº 29). (consultar Anexo I – compatibilidade Boletim Técnico “Compatibilidade Sistemas Hans”. Link: -----);~~

Conforme Boletim Técnico “Tabela de Equipamentos de Segurança” (Link.....) no site da FPAK, Art. 11.2 das PAGK e Capítulo III do Anexo L ao CDI.

Em provas FIA WRC (Rali de Portugal) é obrigatório o uso de roupa ignífuga de acordo com a norma FIA8856-2018 (Lt. nº 74)

Art. 4 - PNEUS

4.1 - Roda de reserva - em cada prova será obrigatória a instalação de pelo menos um pneu suplente devidamente fixado no carro, controlável em qualquer momento da prova.

4.2 - Enchimento de pneus conforme Art. 13.6 das PER.

4.2 3 - Tipo de pneus a utilizar nas Super Especiais (SE) - os pneus a utilizar nas SE, serão obrigatoriamente do mesmo tipo de piso que corresponda ao das restantes PEC`s que integrem essa Prova, conforme Art. 13.7.4 das PER.

4.3-4- Para asfalto

a) É proibido o uso de pneus slick conforme Art. 13.3 das PER.

b) ~~Send~~ O pneu a usar tem que ter o desenho do piso apresentado no ~~(Anexo IV)~~ abaixo no Boletim Técnico “Pneus de Ralis de Asfalto”, transcrito da lista de pneus FIA. Link: -----

c) As listas dos pneus homologados podem sofrer alterações e/ou atualizações.

d) Todos os pneus devem estar em conformidade com o ~~Anexo IV das Prescrições Específicas dos Campeonatos de Ralis FIA Art.13 do Regulamento Regional de Ralis FIA~~ e apresentarem os códigos de barras de identificação FIA.

e) É proibido utilizar qualquer dispositivo para aquecer os pneus depois de montados nas suas jantes.

f) É proibido o corte de pneus salvo em condições especiais e previamente autorizado pela FPAK desde que o corte cumpra o estabelecido no Boletim Técnico “Corte de Pneus de Ralis de Asfalto”, transcrito da lista de recortes para pneus asfalto FIA. (Link.....)

4.4-5- Para terra-Os pneus de terra são livres, contudo não é permitido alterar o desenho original do piso quer seja por corte ou recorte e apresentarem os códigos de barras de identificação FIA.

4.5 6- Dispositivo que permite o pneu conservar a sua performance - é proibido a utilização de qualquer dispositivo que permita regular a pressão dos pneus, aquando da viatura em movimento.

4.6 7- Marcação / Limite a utilizar

a) Todas as viaturas dos concorrentes que disputem provas do CPR (Terra ou Asfalto), independentemente de estarem ou não inscritos no mesmo, ~~poderão utilizar até 10 pneus~~ terão um limite de pneus a usar por prova, os quais serão objeto de verificação e marcação.

b) Exclusivamente para as **“Free Practice” Shakedown e Qualifying** das provas em piso de terra ou asfalto, os pneus utilizados não serão objeto de marcação.

c) Serão objeto de controle dos pneus utilizados nas viaturas com que iniciam a secção tendo de manter os mesmos durante a secção, em quantidade e marcação, até nova entrada em parque de assistência.

d) Nas Super Especiais das provas em piso de terra, os pneus utilizados não serão objeto de marcação.

e) Assim recomenda-se prever uma ZAR - zona assistência remota para troca de pneus se aplicável.

f) Todos os concorrentes disputando provas do CPR têm de preencher um formulário referenciando quais os pneus a utilizar até ao número máximo permitido ~~(conforme formulário em Anexo III)~~, que está disponível como Boletim Técnico “Declaração de Pneus” (Link.....) no site da FPAK, e entregar o mesmo à equipa de comissários técnicos presentes na zona de marcação de pneus, após cada assistência.

g) Tal facto não é impeditivo de controle e marcação de Pneus a qualquer momento da prova.

h) ~~O controle de Pneus poderá ser efetuado à saída do PA, num Reagrupamento, ou no final de qualquer uma das PEC que compõem o Rali.~~

i) CPR - nas provas não internacionais, os pneus são marcados. Serão limitados a um máximo de **10 pneus** por prova, novos ou usados.

- j) **CPR2RM** - nas provas não internacionais, os pneus são marcados. Serão limitados a um máximo de **8 pneus** por prova, novos ou usados.
- k) **CPR e CPR2RM** - nas provas não internacionais de asfalto, os pneus do tipo piso molhado (wet tyres) não são limitados quanto ao número máximo a usar mas serão marcados e têm que constar do Boletim técnico "Pneus de Ralis Wet" (Link: -----). Aquando do preenchimento da "Declaração de Pneus" (Art. 4.7) este tipo de pneus tem de ser identificado como pneu de piso molhado.

4.6.7.1 - Provas Internacionais - que integram o CPR, nestas, o procedimento para a marcação de pneus segue a regulamentação própria dos campeonatos onde se inserem.

a) Independentemente de estarem inscritos no CPR ou não, os concorrentes Nacionais, participantes nas provas do **WRC/ERC/ERT**, terão de preencher no formulário Boletim Técnico de Pneus (**Anexo III**) "Declaração de Pneus" (Art. 4.7) quais os pneus a utilizar e entregar o mesmo ~~ao DT FPAK~~ à equipa de comissários técnicos presentes na zona de marcação de pneus, após cada assistência.

~~b) Serão objeto de controle da quantidade e identificação dos pneus utilizados nas viaturas com que iniciam a secção de PEC, bem como com que a terminam.~~

~~Quer dizer que, quer se apresentem com cinco ou seis pneus no início da secção, terão de regressar com os mesmos pneus com que iniciaram essa secção.~~

Art. 5 - CÂMARAS FILMAR

5.1 - Instalação - Câmara (s) de filmar tem de estar em conformidade com o disposto nos Art 22.2 e 22.2.1 das PGAK ~~a instalação da (s) câmara (s) de filmar tem de estar em conformidade com o disposto no menu Técnica, (Listas Técnicas), Câmaras de Filmar, no site da FPAK.~~ e sua instalação conforme disposto no Boletim Técnico "Câmaras de Filmar" (Link.....) no site da FPAK

~~<https://www.fpak.pt/sites/default/files/ficheiros/2019-06/28704-camaras-de-filmar.pdf>~~

Art. 6 - SELAGEM TURBOCOMPRESSOR (VULGO TURBO) SELAGENS DE COMPONENTES

6.1 - Selagem de componentes mecânicos conforme Art.12.8 das PER

6.1 2 - É obrigatório para as viaturas com turbocompressor (vulgo Turbo), que nas VTI o "Turbo" esteja em conformidade e respeite a localização dos pontos de passagem do fio de selagem conforme se descreve ~~no~~ **Anexo II** no Boletim Técnico "Selagem de Turbocompressor" (Link.....).

Art. 7 - AQUISIÇÃO DE DADOS

7.1 - Para as viaturas em que é possível a aquisição de dados da ECU, estes têm de estar disponíveis sempre que solicitado pelo Delegado Técnico e/ou departamento Técnico da FPAK. Os dados serão analisados imediatamente na presença de um membro da equipa nomeado pelo concorrente ou à posteriori, depois de descarregados para uma drive de armazenamento que será identificada e selada.

Art. 8- COMBUSTIVEL USADO PELAS VIATURAS RALLY2

8.1 - O combustível a usar pelas viaturas Rally2 será de marca livre e do tipo AS - Advanced Sustainable (Art. 252-9.3 do Anexo J atual).

8.2 - Entende-se como AS o componente que deriva do processo de captura de Co2 através da utilização de Biomassas durante o seu fabrico.

8.3 - O combustível a usar deve conter 100% de componente AS e respeitar as especificações do Art.252-9.1 do Anexo J salvo as exceções na tabela seguinte:

Propriété - Property	Unités - Units	Min.	Max.	Méthodes de test - Test methods
Oxygène Oxagen	% m/m		7.5	EN ISO 22854 EN 13132 ⁽²⁾ Analyse élémentaire – Elemental Analysis ASTM D5622
Oléfines Olefins	% v/v		Rapport Report	ISO 22854 ASTM D6839
Aromatiques Aromatics	% v/v		40.0	ISO 22854/ ASTM D6839
Méthanol ⁽¹⁾ Methanol ⁽¹⁾	% v/v		3.0	EN 1601 EN 13132 EN ISO 22854
Caractéristiques de distillation - Distillation characteristics ⁽³⁾				
A E120 °C	% v/v	73.0		ISO 3405 ASTM D86
A E135 °C	% v/v	77.0		ISO 3405 ASTM D86
A E150 °C	% v/v	83.0		ISO 3405 ASTM D86
Point d'ébullition final Final Boiling Point	°C		210	ISO 3405 ASTM D86

8.4 - A FPAK reserva-se no direito de, em qualquer momento e sem necessidade de indicar as razões, substituir este tipo de combustível por outro que cumpra o Art. 252-9 do Anexo J.

8.5 - A FPAK não pode ser responsabilizada por quaisquer danos causados pelo uso de combustível não conforme.

8.6 - A FPAK reserva-se no direito de retirar e verificar o combustível de qualquer viatura em qualquer momento da prova, tendo a viatura de disponibilizar no mínimo 3 litros de combustível.

8.7 - Todas as viaturas terão de ter acoplamento FIA para recolha de amostras de gasolina (L. técnica FIA nº 5)

8.8 - Todas as viaturas terão de transportar um tubo para recolha de combustível com dispositivo de engate para a válvula de acoplamento referida no Art. 8.7 e comprimento suficiente para chegar ao chão depois de acoplado à viatura.

Art. 7 9- PASSAPORTE TÉCNICO FPAK

9.1 - Todas as viaturas terão, obrigatoriamente, de ter um passaporte técnico emitido pela FPAK.

Poderão ainda apresentar um passaporte técnico FIA ou proveniente de outra ADN, desde que de forma pontual. Sempre que um concorrente inscrito no Campeonato/Taça/..., participe em mais do que duas provas com a mesma viatura com PT de outra ADN ou FIA, terá de requerer um PT FPAK de modo a ser efetuada uma monitorização da referida viatura (conforme Artigo 10.2.2 das PGAK).

ANEXO A

CATEGORIAS			GRUPOS/CLASSES	REGULAMENTOS	PESO	CAMPEONATOS				
FIA	CPR	PROMO START CMCR/CAR	VIATURAS	ARTIGO/ANEXO/ANO	MINIMO/KG	CPR	PROMO	START	CMCR	CAR
RALLY2	RC2	X5-16	GRUPO RALLY2	Grupo Rally2 conforme Art.261 Anexo J 2021	1230	☑			☑	☑
		X5-16	S2000 – RALLY 2.0 Atmosférico	Viaturas Super 2000 conforme Art.254 A Anexo J 2013	1200	☑			☑	☑
	RC2K	X5-16	GRUPO RALLY2 kit (VR4K)	Viaturas equipadas com R4 Kit conforme Art.260 E Anexo J 2021	1230	☑			☑	☑
	RC2N	P3/X3	GRUPO N NR4 + 2000cc	Viaturas Grupo N conforme Art.254 Anexo J 2019	FH	☑	☑		☑	☑
		P3/X3	GRUPO N VR4	Viaturas Grupo N conforme Art.260 Anexo J	1300	☑	☑		☑	☑
R-GT	R-GT	X5-16	R-GT FIA	Viaturas Grupo RGT conforme Art.256 Anexo J 2019/2021	PT RGT (FIA)**	☑			☑	☑
	R-GTN	X5-16	R-GT FPAK	REG. FPAK (CPR-GT) + FH	Art.2 do Reg. Técnico CPRGT	☑			☑	☑
RALLY3	RC3	X5-16	RALLY3 Atmosférico + 1390cc até 2000cc e Turbo + 927cc até 1620cc	Viaturas Grupo Rally3 Homologação a partir 01/01/2021 conforme Art.260 Anexo J 2021	1210	☑			☑	☑
	R3N	X5-16	TOYOTA GR YARIS RZ	FH	1300	☑			☑	☑
RALLY4	RC4	X5-16	RALLY4 Turbo + 927 até 1333cc	Viaturas Grupo Rally4 Homologação a partir 01/01/2019 conforme Art.260 Anexo J 2021	1080	☑			☑	☑
		P1/P2	RALLY4 Atmosférico + 1390cc até 2000cc	Viaturas Grupo R2 Homologação antes de 31/12/2018 conforme Art.260 Anexo J 2018	1080	☑	☑	☑	☑	☑
		P2	R3 Atmosférico + 1600cc até 2000cc E Turbo + 1067cc até 1333cc	Viaturas Grupo R Homologação antes de 31/12/2019 conforme Art.260 Anexo J 2019	1080	☑	☑	☑	☑	☑
		P2	R3 Turbo + 1620cc (nominal)	Viaturas Grupo R Homologação antes de 31/12/2019 conforme Art.260 D Anexo J 2019	1080	☑	☑	☑	☑	☑
		P2	GRUPO A + 2000cc	Viaturas Grupo A conforme Art.255 Anexo J 2019	1080	☑	☑	☑	☑	☑
RALLY5	RC5	P2	RALLY5 Atmosférico + 1600cc e Turbo + 1067cc	Viaturas Grupo R1 conforme Art.260 Anexo J	1030/1080	☑	☑	☑	☑	☑
-	RC5N	P2/3	KIA PICANTO	Conforme Regulamento Troféu	FH	☑	☑	☑	☑	☑
E-RALLY	E-RALLY	X5-16	VIATURAS DE PROPULSÃO – ENERGIAS ALTERNATIVAS	FIA	FH	☑	☑	☑	☑	☑

-	-	P1 - 2 RM até 1600cc	Classe 1 – até 1400cc Classe 2 – de 1401cc a 1600cc	Art. 2.2.1 Reg. Técnico Ralis Promo/Start/Regionais		✓	✓	✓	✓
-	-	P2 - 2 RM + 1600cc	Classe 3 – de 1601cc a 2000cc Classe 4 – de 2001cc a 3000cc Classe 5 – mais de 3001cc a 3500cc	Art. 2.1.1 Reg. Técnico Ralis Promo/Start/Regionais		✓	✓	✓	✓
-	-	P3 - 4 RM	Classe 6 – até 2500cc Classe 7 – mais de 2501cc a 3500cc	Art. 2.1.1 Reg. Técnico Ralis Promo/Start/Regionais		✓		✓	✓
-	-	X1 - 2 RM até 1600cc	Classe 8 – até 1400cc Classe 9 – de 1401cc a 1600cc	Art. 12 Reg. Técnico Ralis Promo/Start/Regionais		✓	✓	✓	✓
-	-	X2 - 2 RM + 1600cc	Classe 10 – de 1601cc a 2000cc Classe 11 – de 2001cc a 3000cc Classe 12 – mais de 3001cc a 3500cc	Art. 12 Reg. Técnico Ralis Promo/Start/Regionais		✓	✓	✓	✓
-	-	X3 – 4 RM	Classe 13 – até 2500cc Classe 14 – mais de 2501cc a 3500cc	Art. 12 Reg. Técnico Ralis Promo/Start/Regionais		✓		✓	✓
-	-	X4 - Diesel	Classe 15 – Todas as motorizações diesel	Art. 12 Reg. Técnico Ralis Promo/Start/Regionais		✓	✓	✓	✓
-	-	X5	Classe 16 – Todas as viaturas com homologação FIA/FPAK válida (VCHF). Inclui RGT/ Rally 4, assim como viaturas WRC com FH FIA atual	Art. 12 Reg. Técnico Ralis Promo/Start/Regionais		✓		✓	✓
-	-	X6	Classe 17 - até 3500cc	Grupo N5/PROTO Viaturas com homologação FPAK e de outras ASN Art. 255 Anexo J Regulamento Próprio Grupo X ou FH		✓		✓	✓
-	-	X7 – 2RM	Classe 18 – Motores atmosféricos até 1600cc Classe 19 – Motores turbo + 1600cc	Grupo N3 Viaturas com homologação FPAK e de outras ASN Art. 255 Anexo J Regulamento Próprio Grupo X ou FH		✓		✓	✓
-	-	SC	Classe 20 – até 2000cc						

VIATURAS	REGULAMENTOS ARTIGO/ANEXO/ANO	PESO MINIMO [KG]	GRUPOS/CLASSES POR CAMPEONATOS			
			CPR	CMCR / CAR	PROMO	START
GRUPO RALLY2	Art.261 Anexo J 2021	1230	RC2		X5/16	
S2000 – RALLY 2.0 Atmosférico	Art.254A Anexo J 2013	1200	RC2		P3/6	X5/16
GRUPO RALLY2 kit (VR4K)	Art.260 E Anexo J 2021	1230	RC2K		X5/16	
GRUPO N NR4 + 2000cc	Art.254 Anexo J 2019	FH	RC2N		P3/X3	
GRUPO N VR4	Art.260 Anexo J	1300	RC2N		P3/X3	
R-GT FIA	Art.256 Anexo J 2019/2021	PT RGT (FIA)*	RGT		X5/16	
R-GT FPAK	REG. FPAK (CPR-GT) + FH	Reg. Téc. CPRGT	R-GTN		X5/16	
RALLY3 Atmosférico + 1390cc a 2000cc e Turbo + 927cc a 1620cc	Desde 01/01/2021 Art.260 Anexo J 2021	1210	RC3		X5/16	
TOYOTA GR YARIS RZ	FH	1300	RC3N		P3/7	X5/16
RALLY4 Turbo + 927 a 1333cc	Viaturas Rally4 FH desde 01/01/2019 - Art.260 Anexo J 2021	1080	RC4		X5/16	
RALLY4 Atmosférico + 1390cc a 2000cc	Viaturas R2 FH desde 31/12/2018 Art.260 Anexo J 2018	1080	RC4		P1/P2	
R3 Atmosférico + 1600cc a 2000cc E Turbo + 1067cc a 1333cc	Viaturas R3 FH desde 31/12/2019 Art.260 Anexo J 2019	1080	RC4		P2	
R3 Turbo + 1620cc (nominal)	Viaturas R3T FH desde 31/12/2019 Art.260 D Anexo J 2019	1080	RC4		P2	
GRUPO A + 2000cc	Viaturas Grupo A conforme Art.255 Anexo J 2019	1080	RC4		P2	
RALLY5 Atmosférico + 1600cc e Turbo + 1067cc	Viaturas Grupo R1 conforme Art.260 Anexo J	1030/1080	RC5		P2	
KIA PICANTO	Conforme Regulamento Troféu	FH	RC5N		P2/3	
VIATURAS DE PROPULSÃO ENERGIAS ALTERNATIVAS	FIA	FH	E-Rally	❖	❖	❖
VFHC 2RM	Extensão de 8 anos - Regulamentação FIA		RC4/RC5	P1/1 – até 1400cc P1/2 – de 1401cc a 1600cc P2/3 – de 1601cc a 2000cc P2/4 – de 2001cc a 3000cc P2/5 – mais de 3001cc a 3500cc		
	Art. 2.1 Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖			
VFHC 4RM	Art. 2.1 Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖	P3/6 – até 2500cc P3/7 – de 2501 a 3500cc		X5/16
	Extensão de 8 anos - Regulamentação FIA		RC2/RC2N			
Sem FH ou s/ cumprir a FH 2RM	Art. 2.2 e Art. 12 do Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖	X1/ 8 – até 1400cc X1/ 9 – de 1401cc a 1600cc X2/10 – de 1601cc a 2000cc X2/11 – de 2001cc a 3000cc X2/ 12 – de 3001cc a 3500cc		
Sem FH ou s/ cumprir a FH 4RM	Art. 2.2 e Art. 12 do Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖	X3/13 – até 2500cc X3/ 14 – de 2501cc a 3500cc		
DIESEL – Todas as viaturas**	Art. 2.2 e Art. 12 do Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖	X4/15		
N5 RFEa até 1600cc (nominal)	Art.2.1.1 Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖	P4/17		
Proto + de 1990cc (nominal)	Art. 2.1.2 Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖	P5/18		
N3 RFEa Atmosférico	Art. 2.1.3 Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖	P6/19		
N3 RFEa turbo	Art. 2.1.4 Reg. Técnico Ralis Promo/Start/CMCR/CAR		❖	P6/20		

❖ - Viaturas que não podem competir em determinada prova de um campeonato, por não estarem elegíveis para tal.

* - Conforme passaporte técnico RGT (FIA)

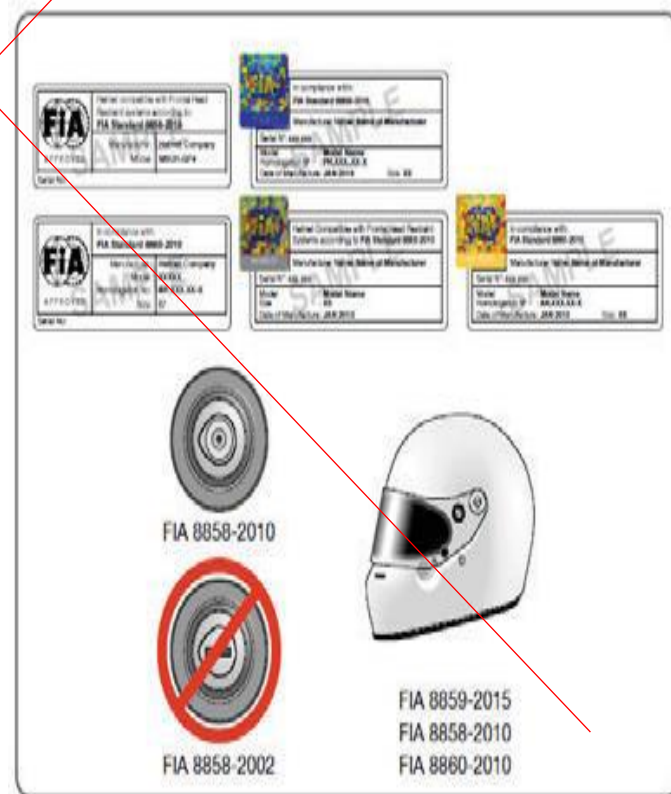
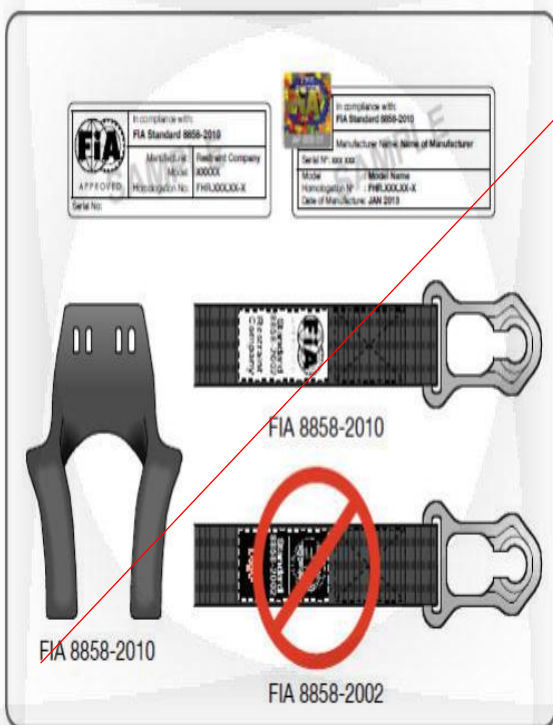
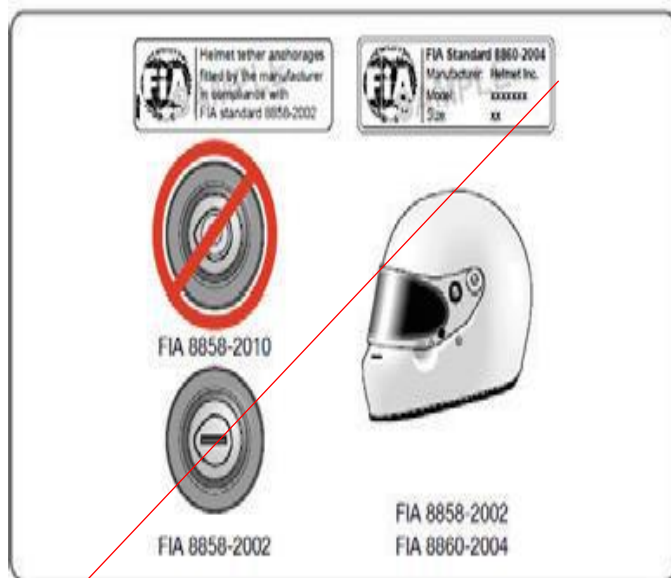
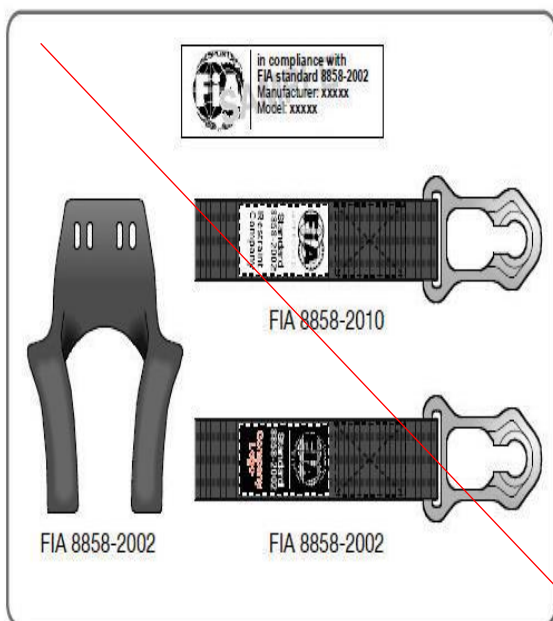
** - As viaturas do Grupo X4-15 com tração às 4 rodas motorizadas (4x4), só pontuam no campeonato Promo e estão interditas nos campeonatos start.

- X5/16 - Viaturas que podem alinhar em determinada prova de um campeonato onde não são elegíveis para pontuar.

- A atribuição da classe para as viaturas dispostas de motores sobrealimentados ou com compressor volumétrico, é estipulada pela cilindrada resultante do coeficiente de correção aplicado á sua cilindrada nominal.

ANEXO I

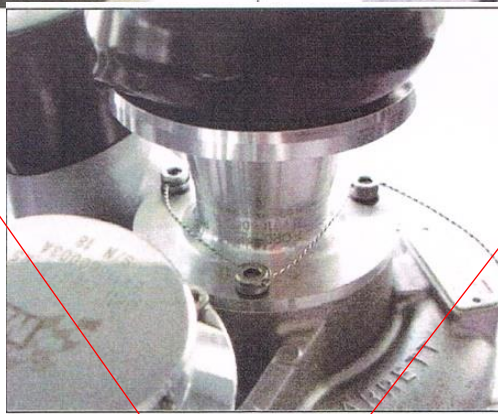
COMPATIBILIDADE CAPACETES SISTEMA (HANS-FHR)



ANEXO II
SELAGEM DO TURBOCOMPRESSOR (TURBO)



ZOOM DE PONTOS DE PASSAGEM DO FIO DE SELAGEM



LADO DA TURBINA



ANEXO III



CONCORRENTE Nº:

.....

Rali de 2024

Eu, com o número de licença e como concorrente/**representante** da viatura com o número referenciado acima, declaro que os códigos de barras dos pneus que a utilizar na Secção nº serão:

	Código Barras FIA (Amarelo e/ou Vermelho)	Novos na Prova?		Pneu de Chuva?	
		Sim	Não	Sim	Não
Pneu 1					
Pneu 2					
Pneu 3					
Pneu 4					
Pneu 5 Supl.					
Pneu 6 Supl.					

Pneu 1:

Pneu 2:

Pneu 3:

Pneu 4:

Pneu Suplente 5:

Pneu Suplente 6:

E para que assim conste assino a presente, de de

Assinatura:

Nº de licença:

ANEXO IV

DESENHOS DO PISO DOS PNEUS DE ASFALTO LISTA CPR 2022

18" - 20/65-18



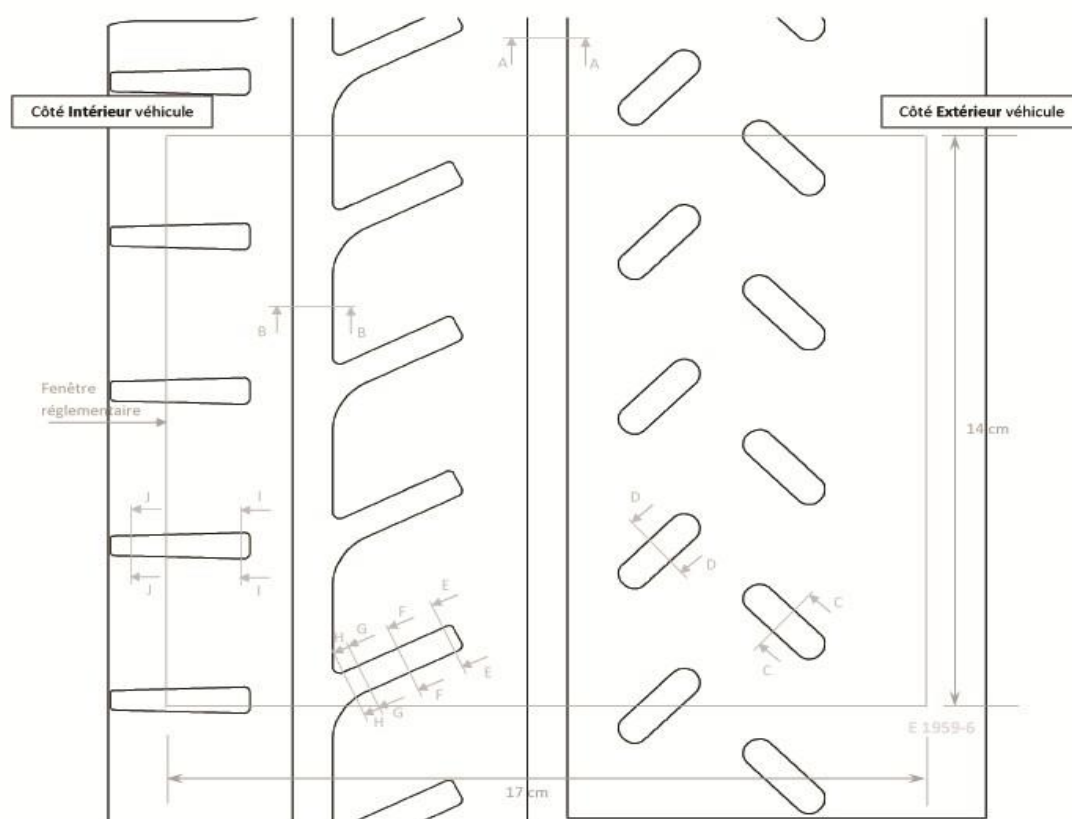
Domaine : Rallye Asphalte

Clermont-Ferrand le 05/12/2013

Dimension : 20 / 65 - 18

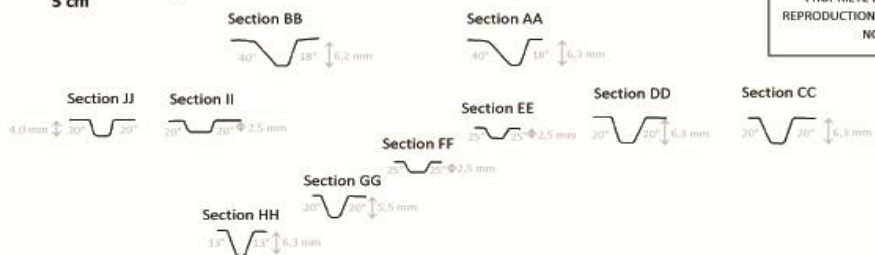
Plan de la sculpture : Pilot Sport R

Entaillement Surfaccique dans fenêtre règlementaire : 21,51 %



Echelle 1:1
5 cm

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NOTRE ACCORD ECRIT



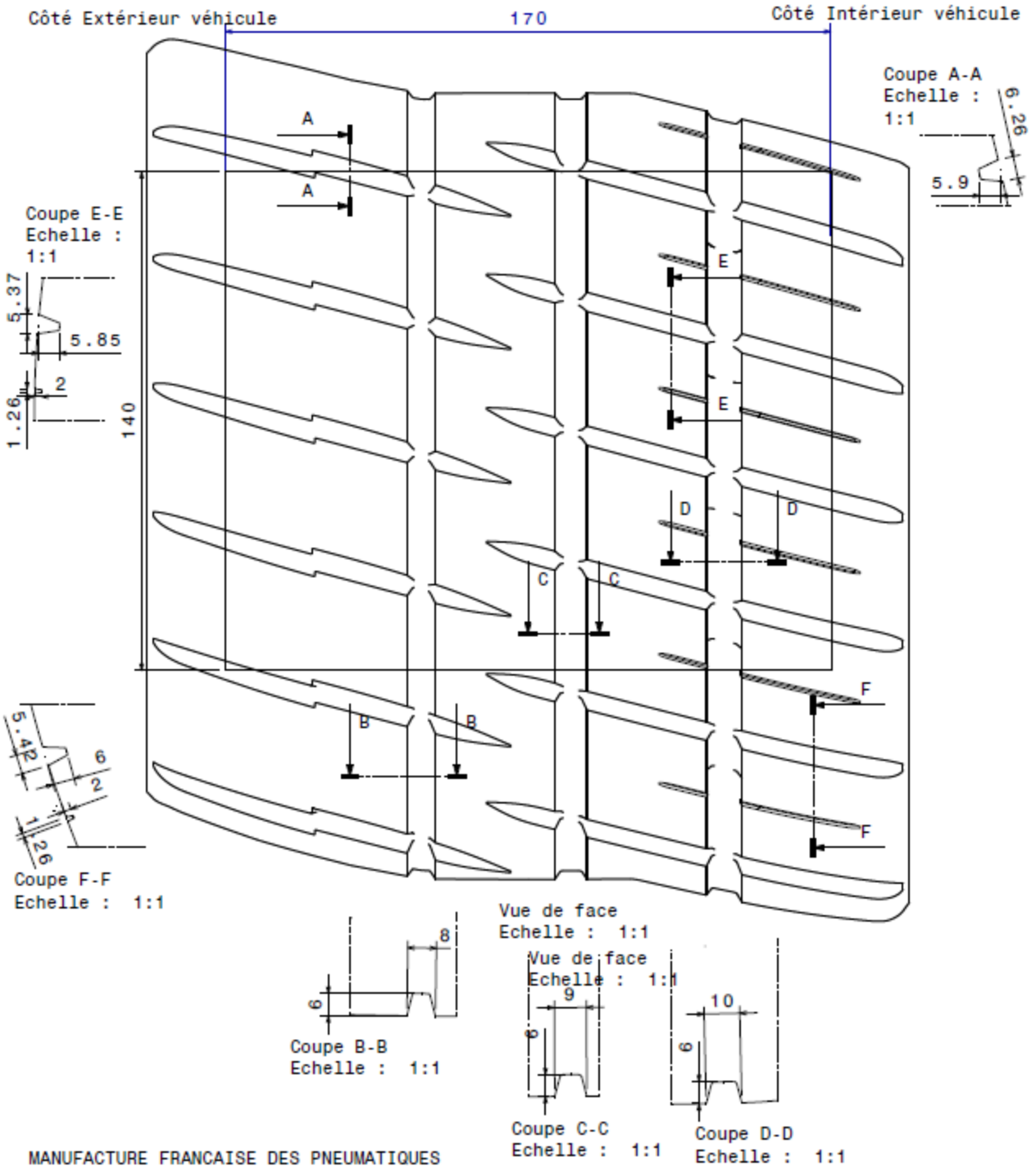
18" - 20/65-18



Domaine : Rallye Asphalte Wet
 Dimension : 20 / 65 - 18
 Plan de la sculpture : Pilot Sport A MW1
 Entaillement Surfaccique dans fenêtre
 règlementaire > ou = 27.5 % avec les entailles > 1.8 mm de
 profondeur comme avec les entailles > 5.5 mm de profondeur.



Clermont-Ferrand le 03/07/2019



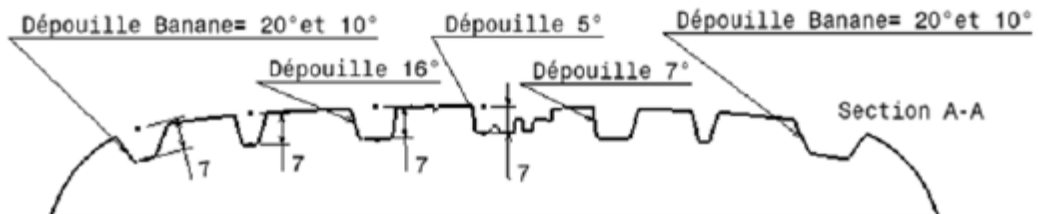
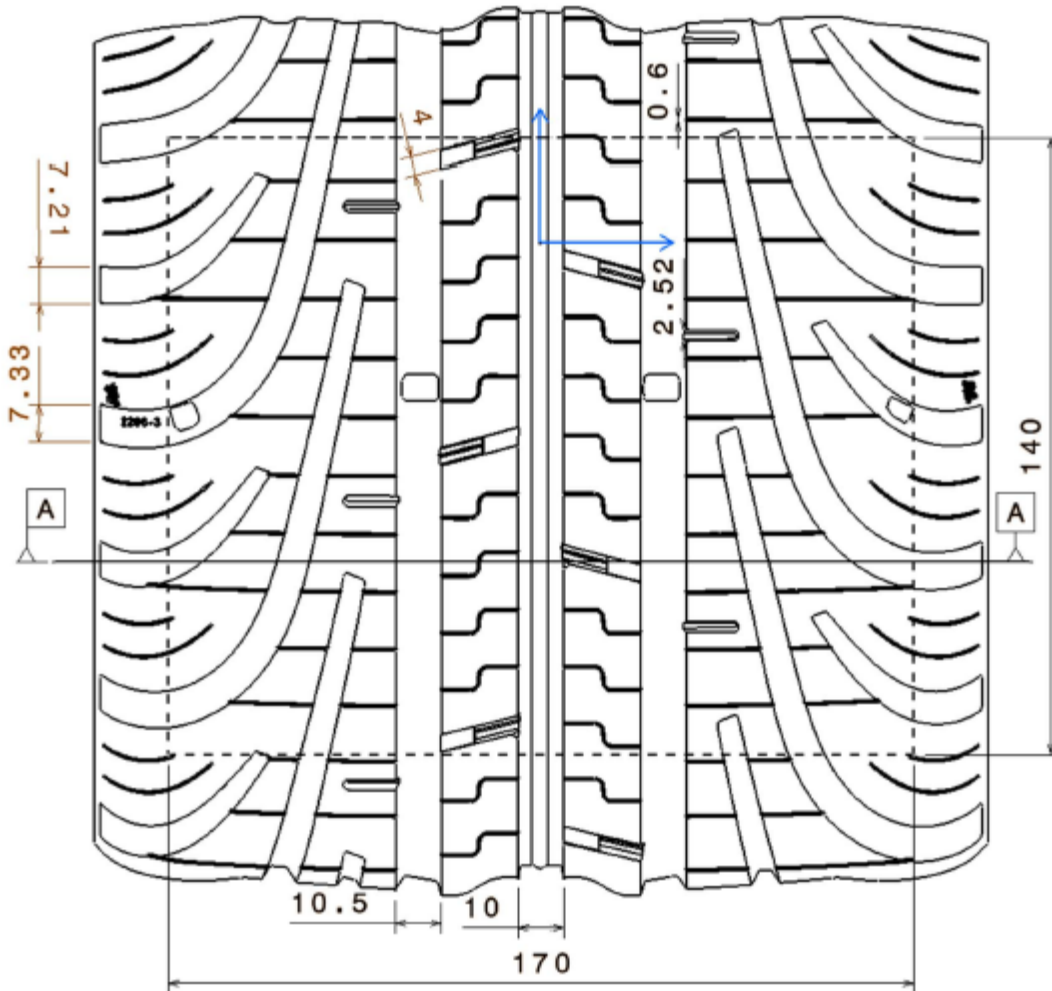
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18" - 18/65-18



Clermont-Ferrand le : 15/12/2016
Domaine : Rallye Asphalte WRC Wet
Dimension : 18 / 65 - 18
Plan de la sculpture : Pilot Sport FW3
Entaillement Surfacique sur entaille $\geq 5,5\text{mm}$ de profondeur : 27.5%

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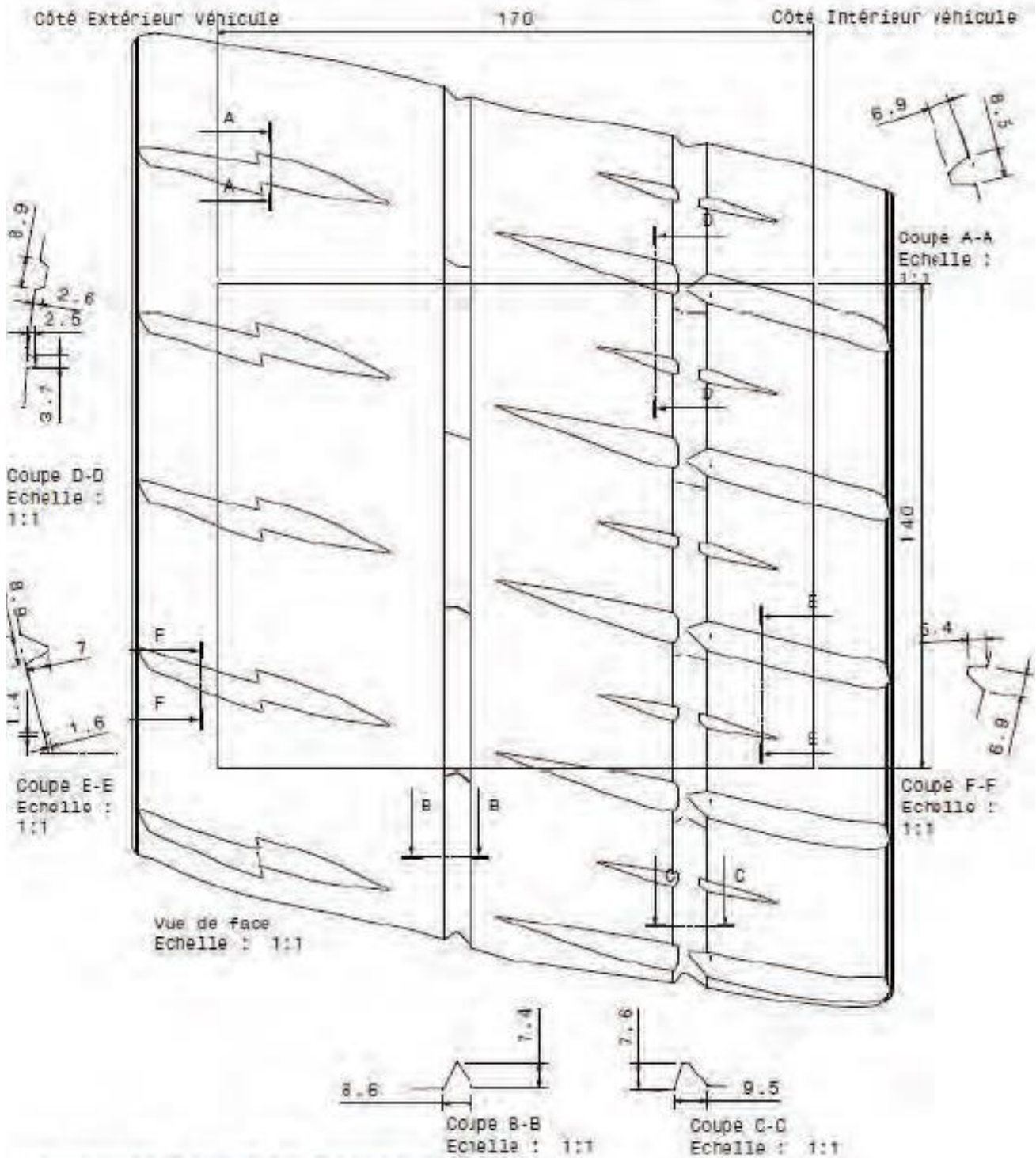


18" - 20/65-18

Domaine : Rallye Asphalte
Dimension : 20 / 65 - 18
Plan de la sculpture : Pilot Sport A
Entaillement Surfâcique dans fenêtre
réglementaire : 21.74 %



Clermont-Ferrand le 05/08/2020



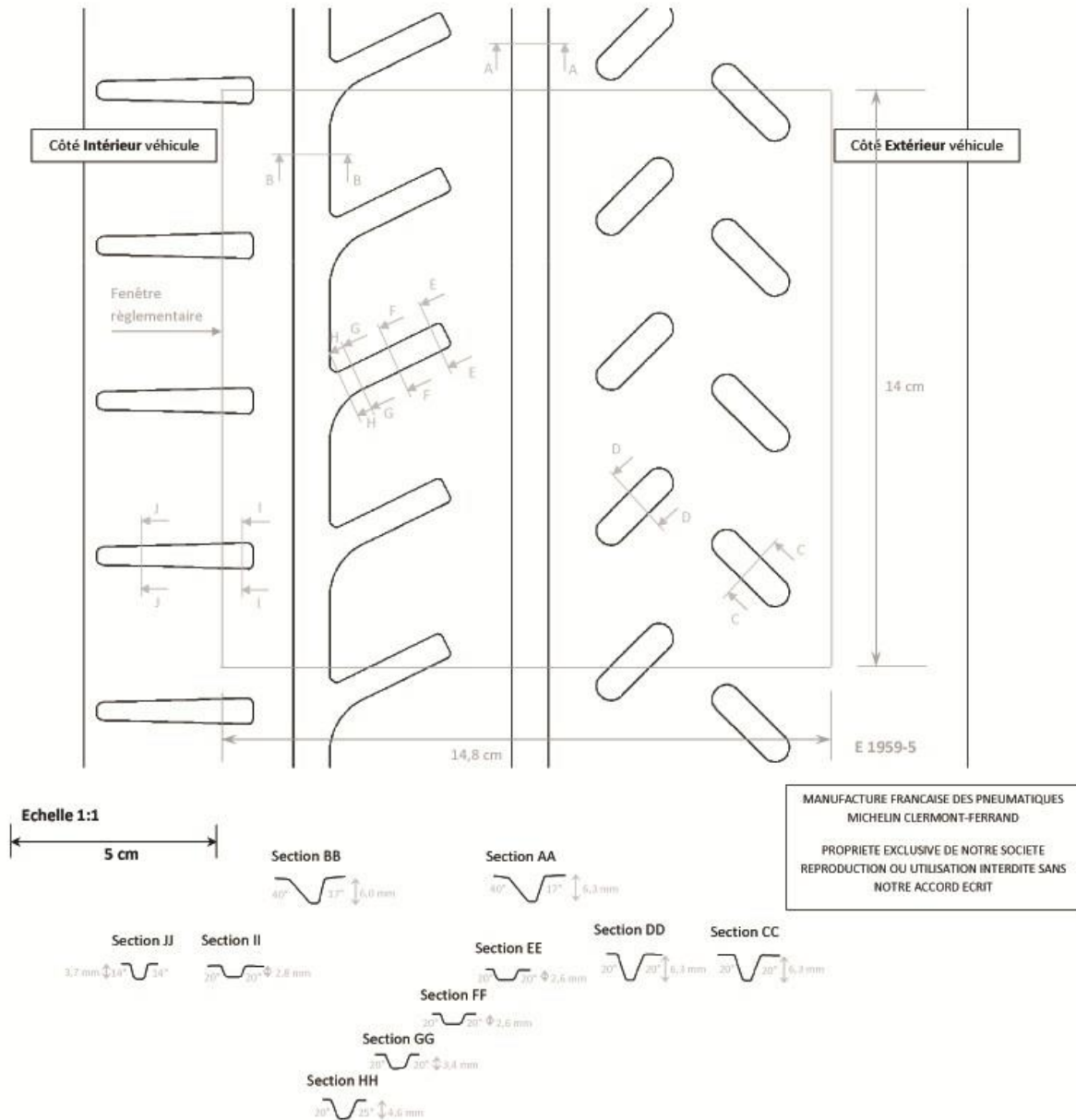
MANUFACTURE FRANCAISE DES PNEUMATIQUES
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17" - 19/63-17



Domaine : Rallye Asphalte
 Dimension : 19 / 63 – 17
 Plan de la sculpture : Pilot Sport R
 Entaillement surfacique sur fenêtre réglementaire : 21,51 %

Clermont-Ferrand le 05/12/2013



17" - 19/63-17

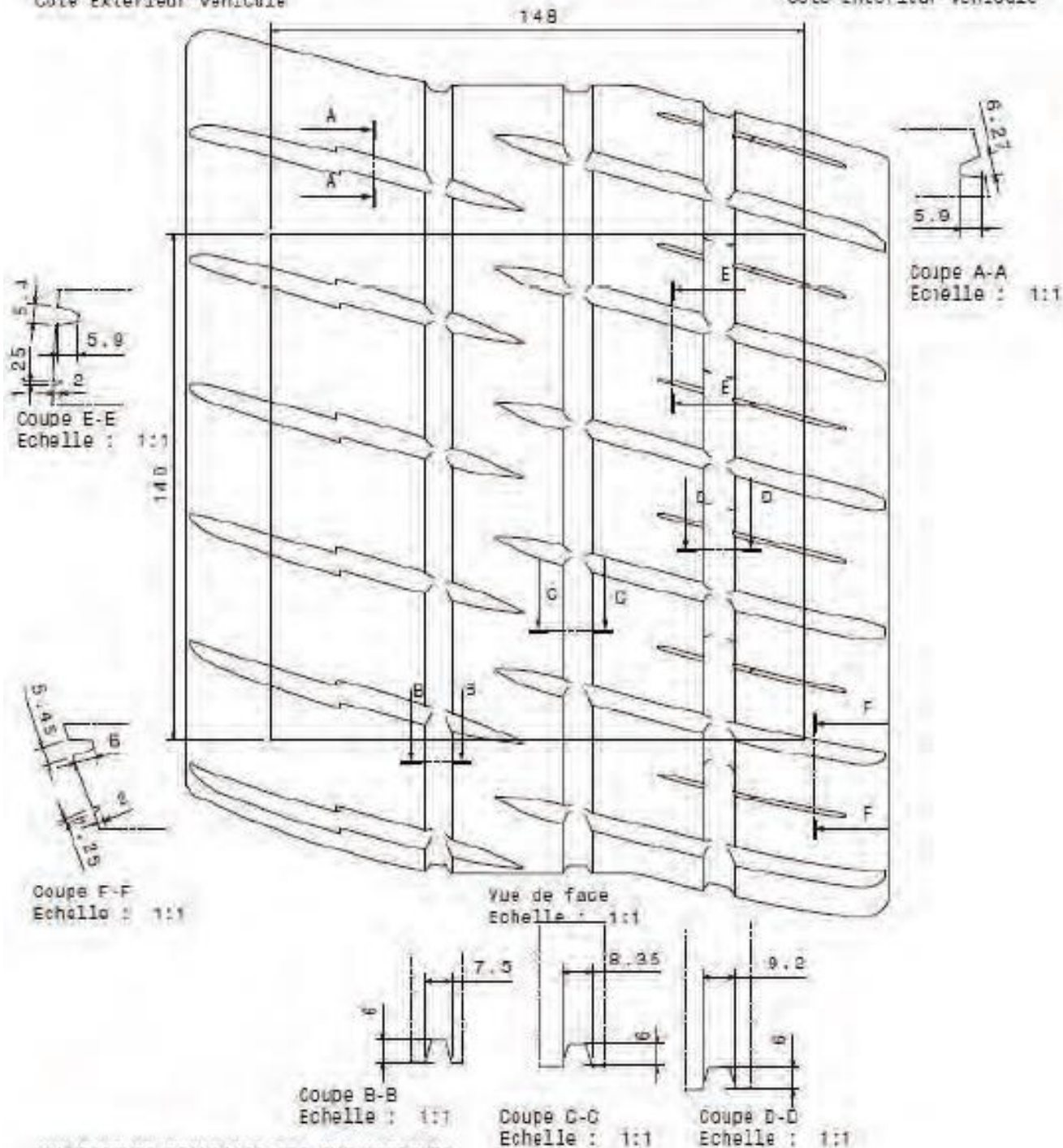
Domaine : Rallye Asphalte Wet
Dimension : 19 / 63 - 17
Plan de la sculpture : Pilot Sport A MW1
Entaillement surfacique dans fenetre
reglementaire > ou = 27.5 % avec les entailles > 1.8 mm de
profondeur comme avec les entailles > 5.5 mm de profondeur.



Clermont-Ferrand le 18/09/2019

Côté Extérieur véhicule

Côté Intérieur véhicule



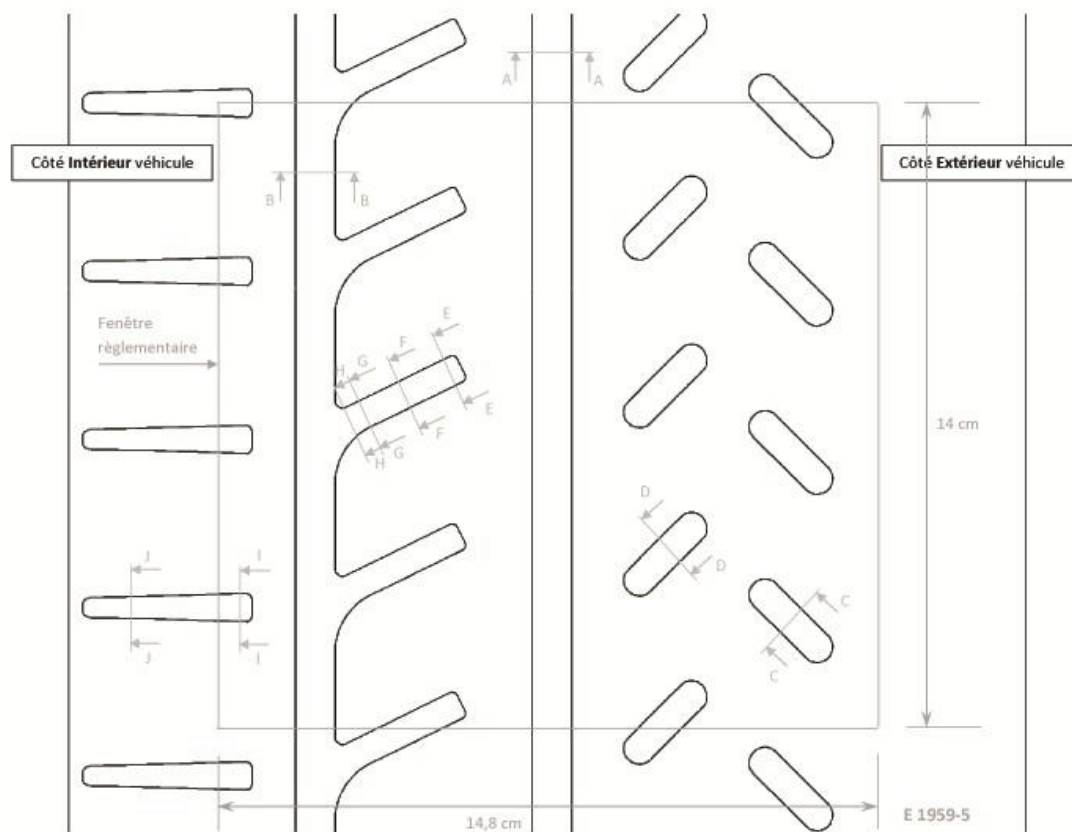
MANUFACTURE FRANCAISE DES PNEUMATIQUES
MICHELIN CLERMONT-FERRAND
PROPRIETE EXCLUSIVE DE NOTRE SOCIETE
REPRODUCTION OU UTILISATION INTERDITE SANS
NOTRE ACCORD ECRIT

16" - 19/60-16

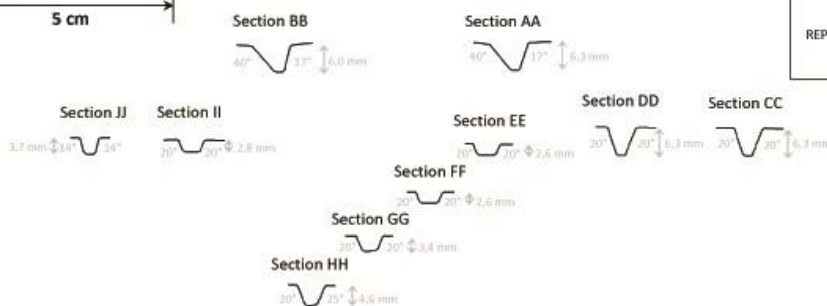


Domaine : Rallye Asphalte
 Dimension : 19 / 60 – 16
 Plan de la sculpture : Pilot Sport R
 Entaillement surfacique sur fenêtre réglementaire : 21,51 %

Clermont-Ferrand le 05/12/2013



Echelle 1:1
 5 cm



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16" - 19/60-16

Domaine : Rallye Asphalte Wet

Dimension : 19 / 60 - 16

Plan de la sculpture : Pilôt Sport A MW1

Entaillement Surfaccique dans fenetre

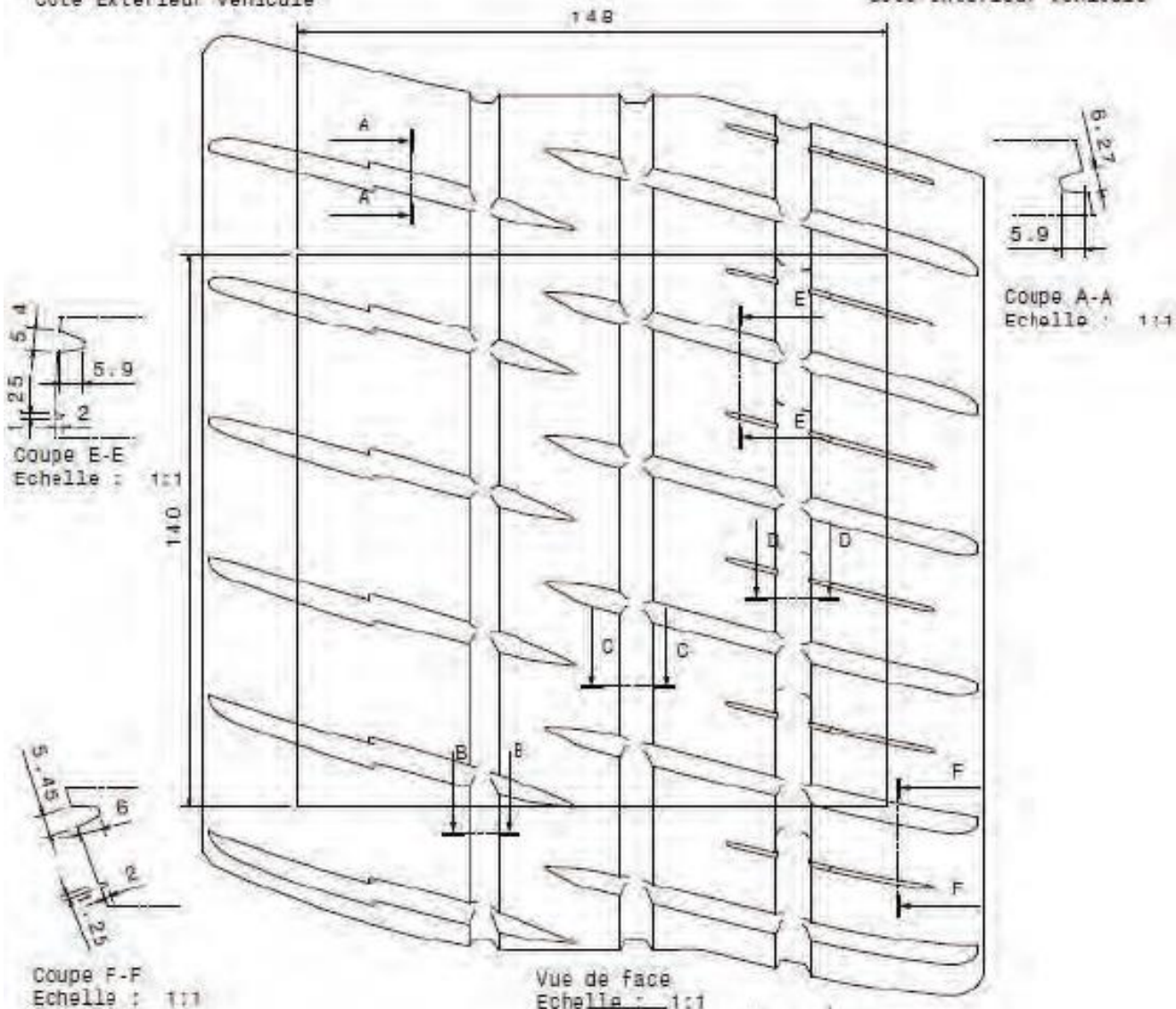
reglementaire > ou = 27.5 % avec les entailles > 1.8 mm de profondeur comme avec les entailles > 5.5 mm de profondeur.



Clermont-Ferrand le 23/09/2019

Côté Extérieur véhicule

Côté Intérieur véhicule



Coupe E-E
Echelle : 1:1

Coupe A-A
Echelle : 1:1

Coupe F-F
Echelle : 1:1

Vue de face
Echelle : 1:1

Coupe B-B
Echelle : 1:1

Coupe C-C
Echelle : 1:1

Coupe D-D
Echelle : 1:1

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15" - 19/58-15



RGT only - 24/65-18

Circonférentielles sont coupées à la main.

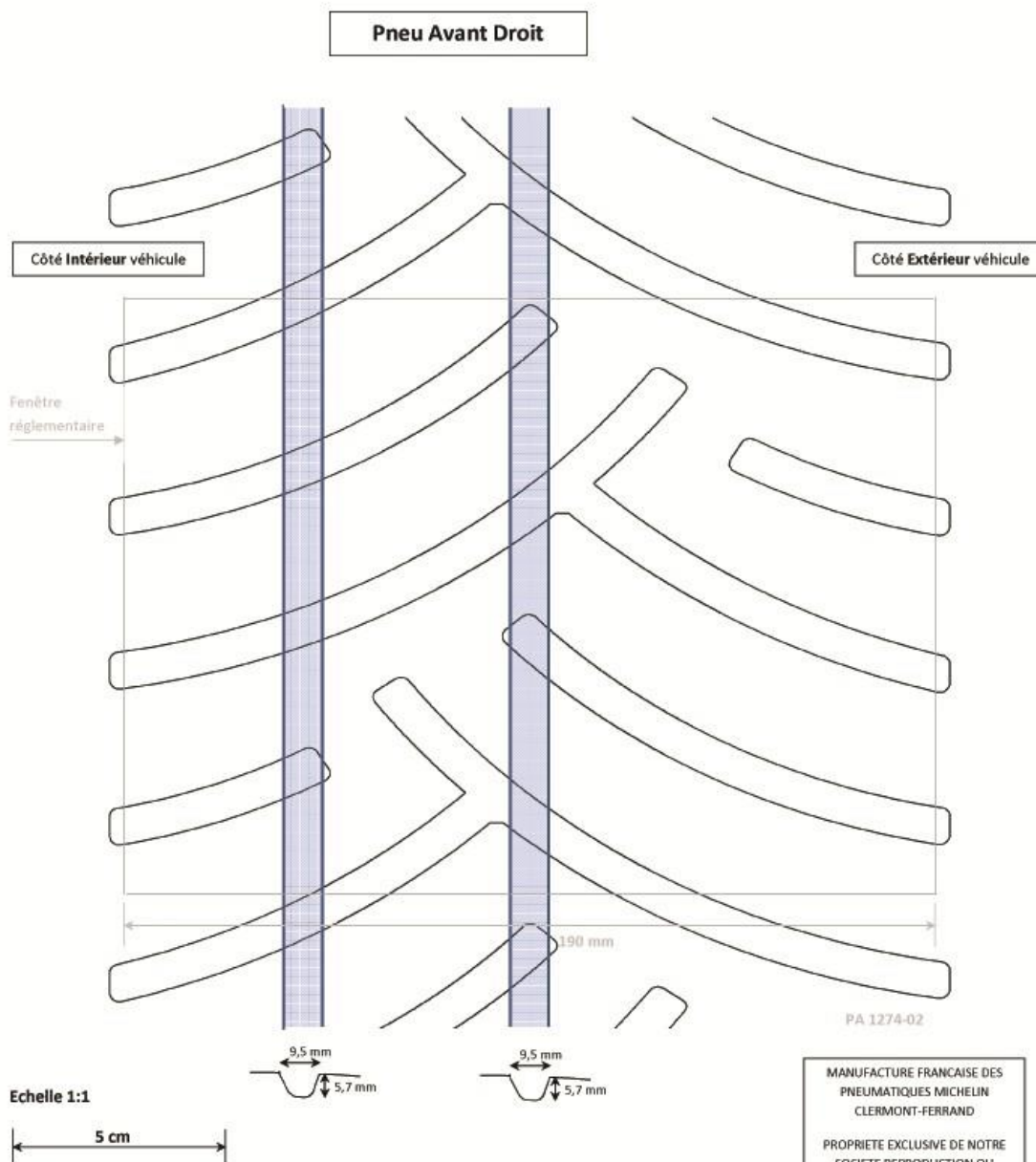


Domaine : Rallye Asphalte

Dimension : 24 / 65 - 18

Entaillement surfacique sur une fenêtre de 190 mm de large : 32,8 %

Clermont-Ferrand le 18/12/2013



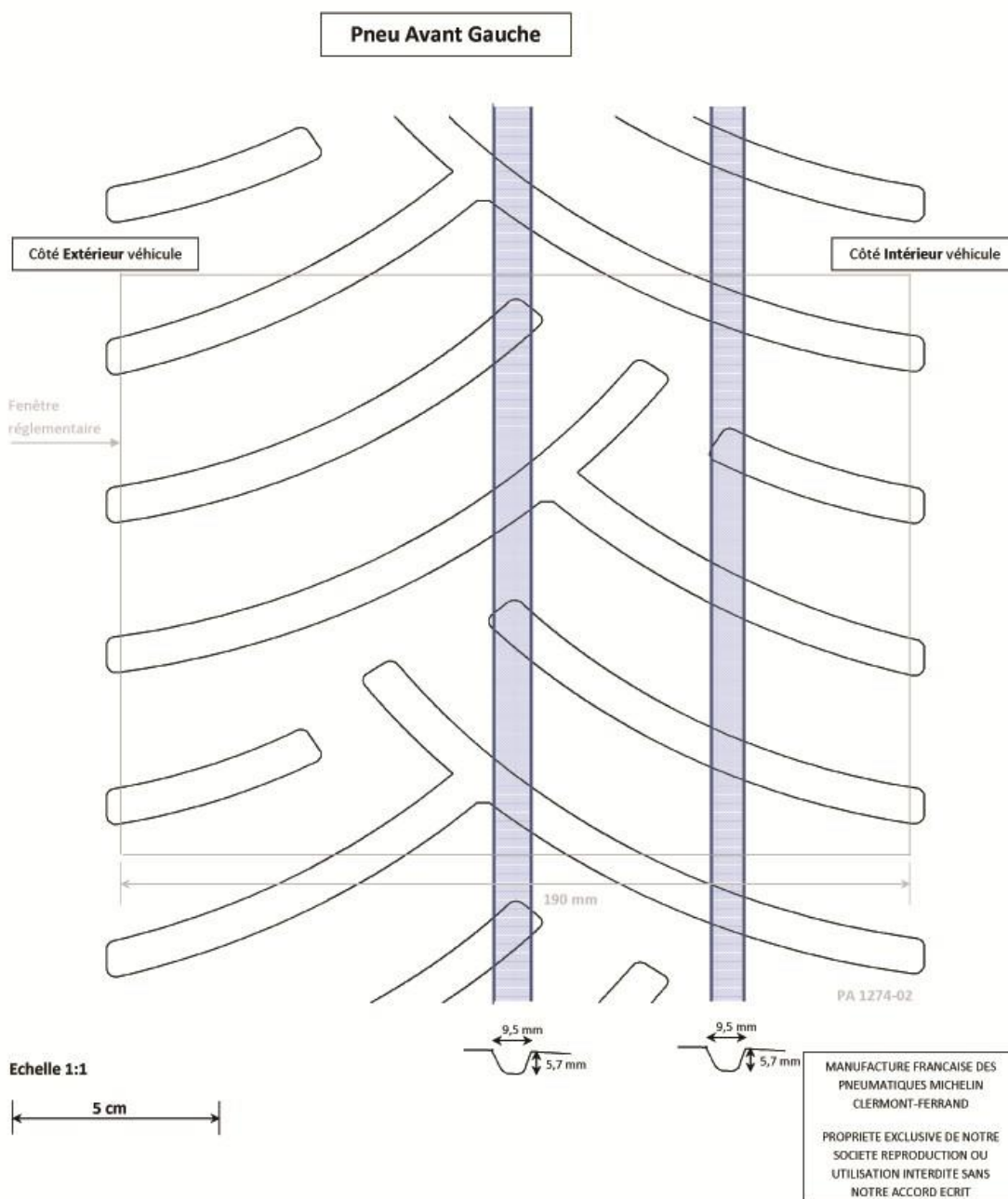
RGT only - 24/65-18

Circonférentielles sont coupées à la main.



Domaine : Rallye Asphalte
Dimension : 24 / 65 - 18
Entaillement surfacique global : 32,8 %

Clermont-Ferrand le 18/12/2013



RGT only - 24/65-18



Domaine : Rallye Asphalte

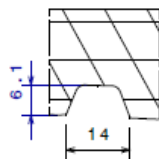
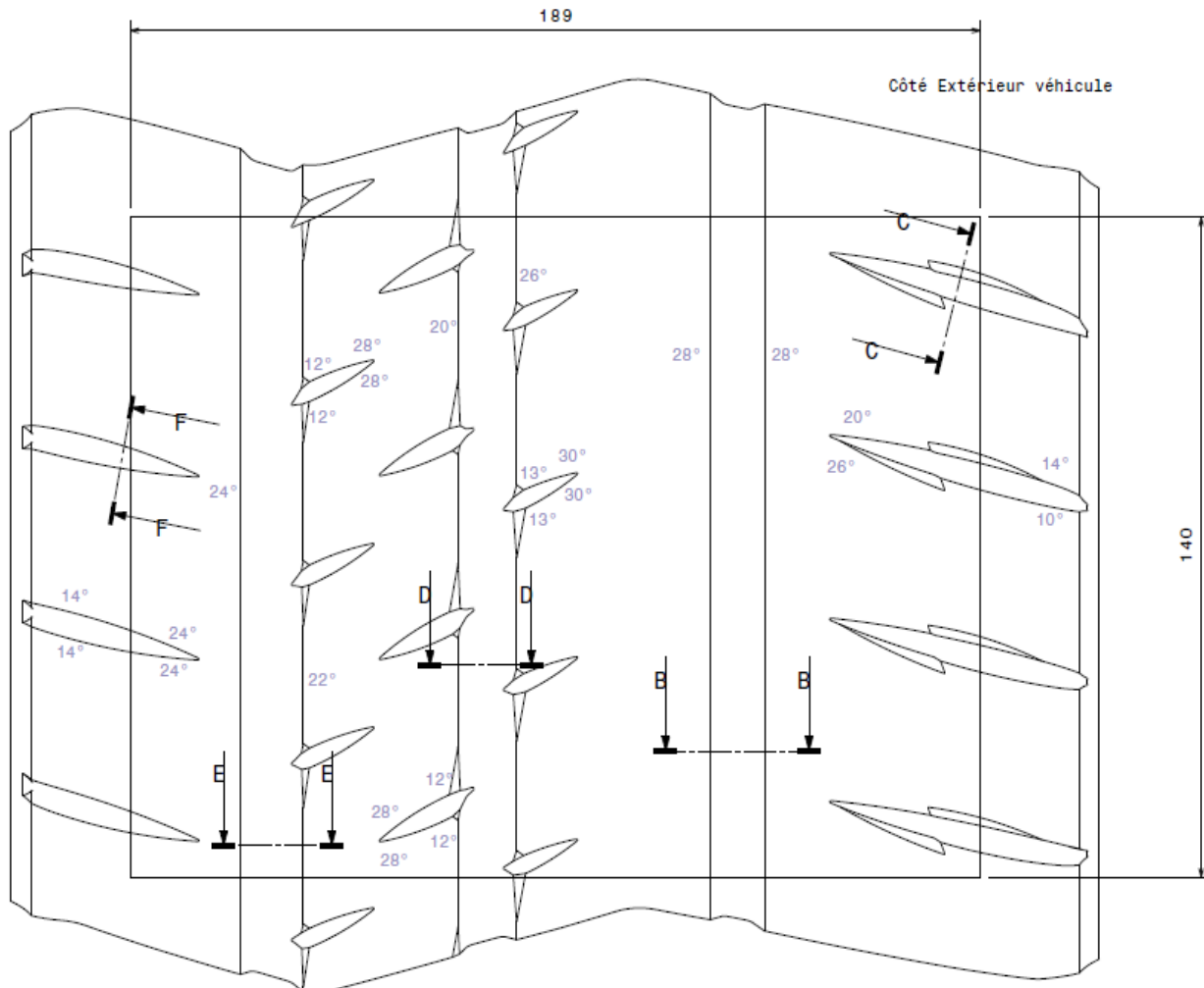
Dimension : 24/65 R18

Plan de la sculpture : Pilot Sport R

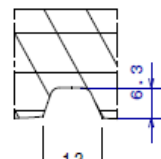
Entaillement Surfaccique dans fenetre règlementaire : 21.7 % à 1.8 mm d'usure

: 17 % à 5.5 mm d'usure

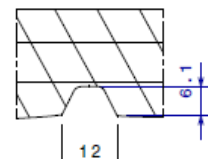
Clermont-Ferrand le 28/02/2018



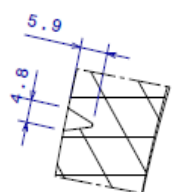
Coupe E-E



Coupe D-D

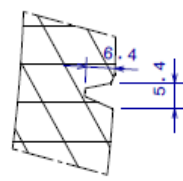


Coupe B-B



Coupe F-F

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Coupe C-C

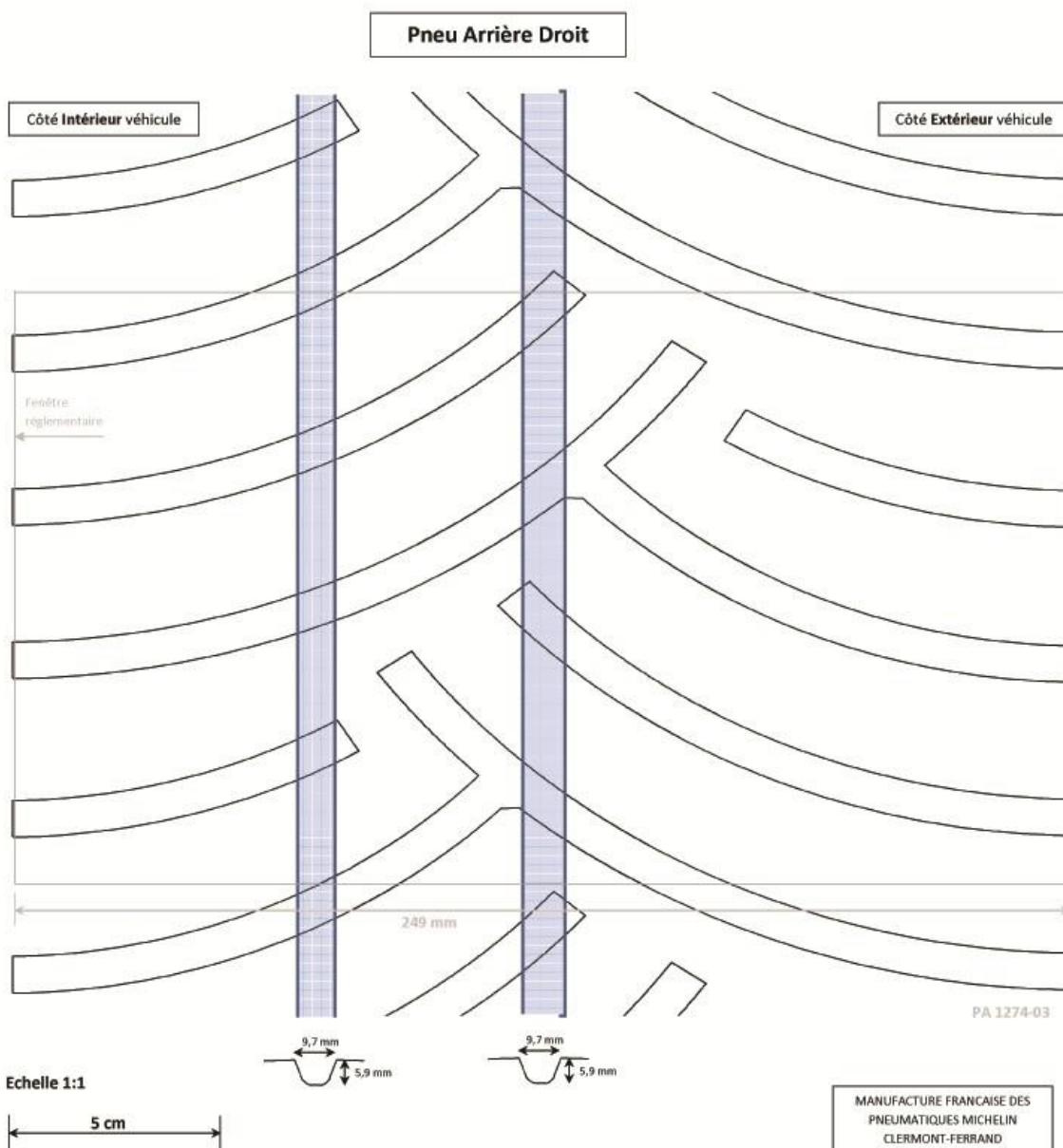


Domaine : Rallye Asphalte

Clermont-Ferrand le 18/12/2013

Dimension : 29 / 65 - 18

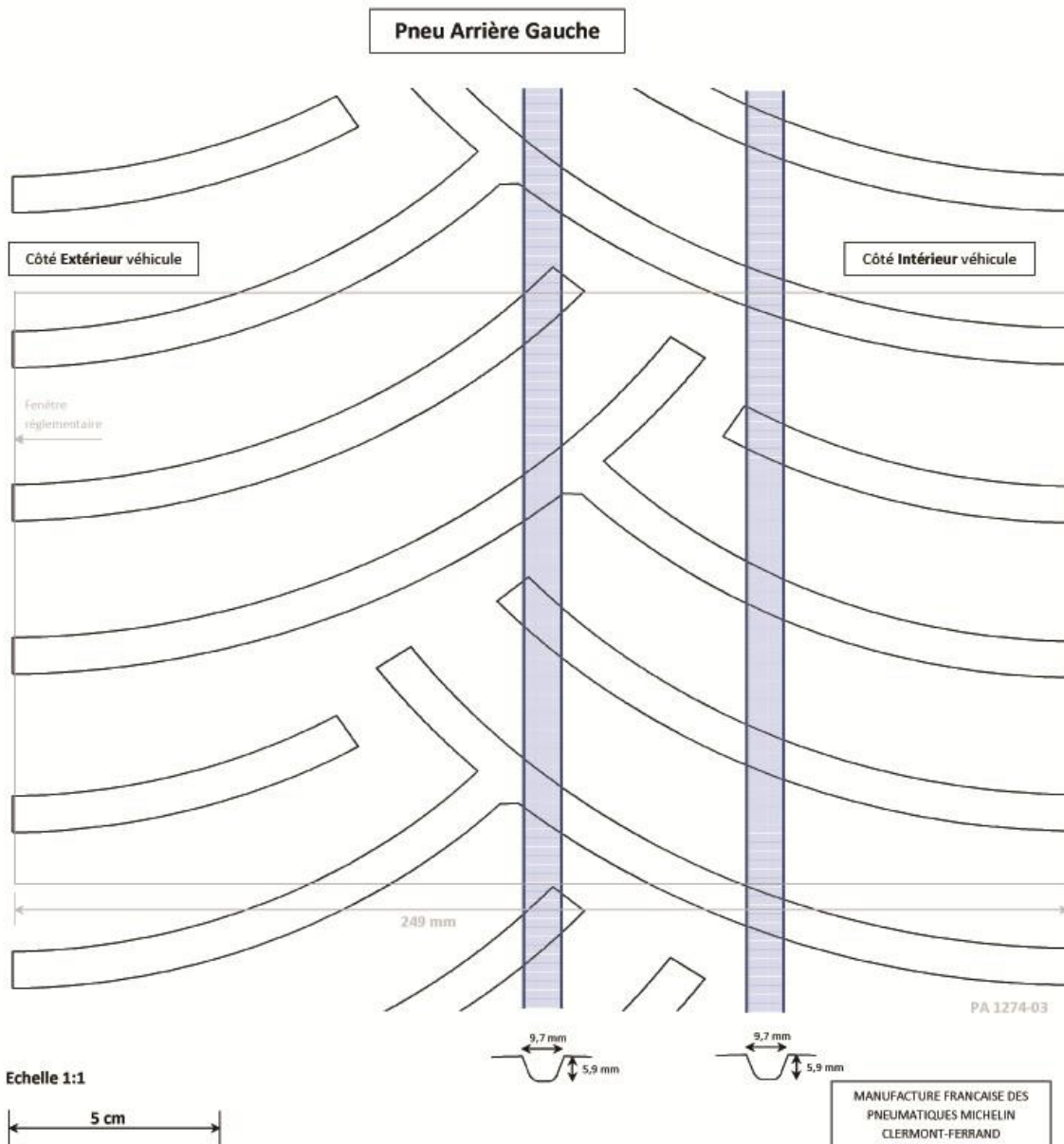
Entaillement surfacique sur fenêtre de 249 mm de large : 31 %





Domaine : Rallye Asphalte
Dimension : 29 / 65 – 18
Entaillement surfacique sur fenêtre de 249 mm de large : 31 %

Clermont-Ferrand le 18/12/2013

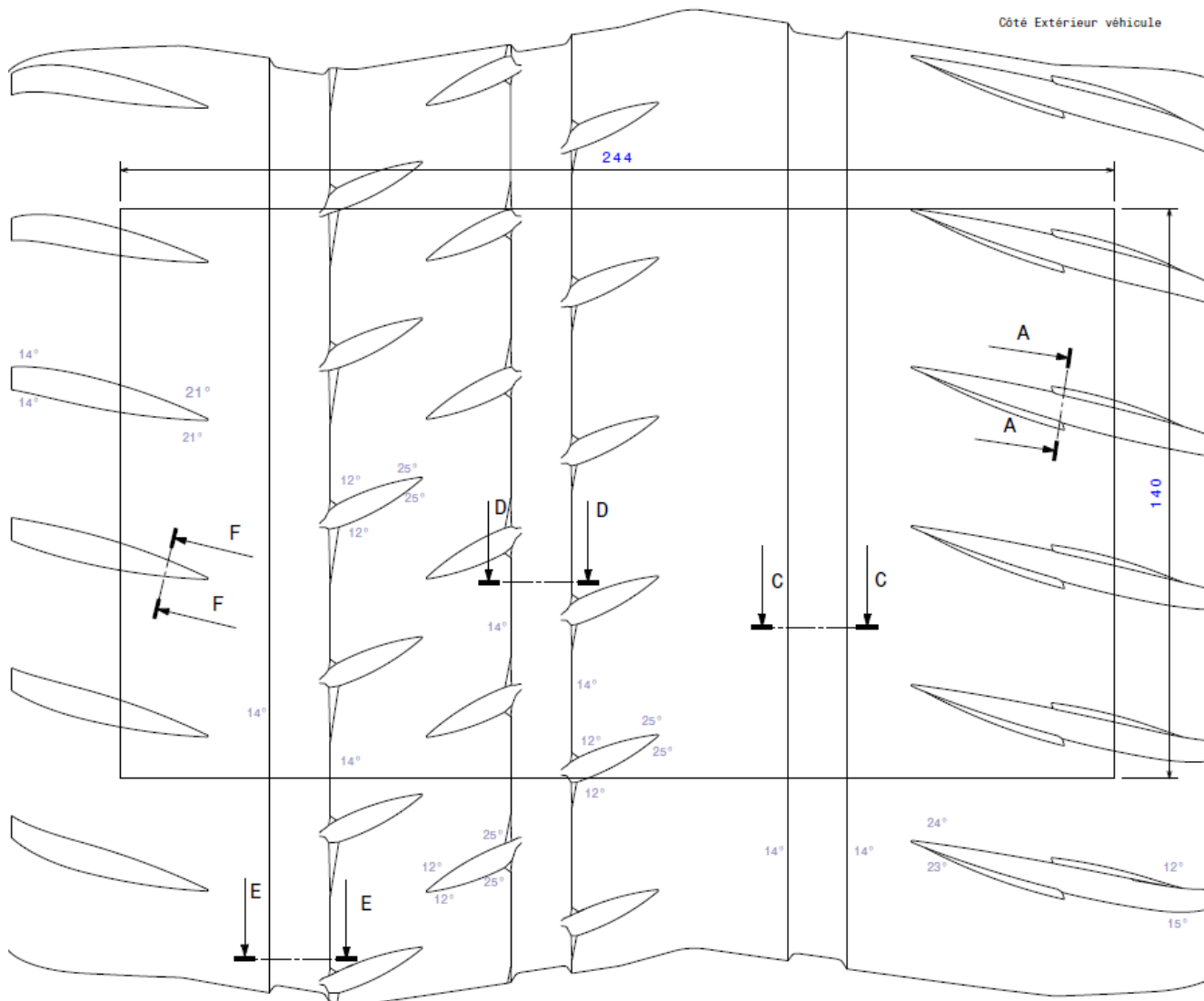




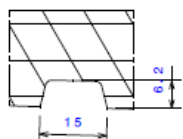
Domaine : Rallye Asphalte
 Dimension : 29/65 R18
 Plan de la sculpture : Pilot Sport R
 Entaillement Surfaccique dans fenetre réglementaire : 22.6 % à 1.8 mm d'usure
 : 19.2 % à 5.5 mm d'usure

Clermont-Ferrand le 28/02/2018

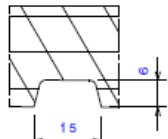
Côté Extérieur véhicule



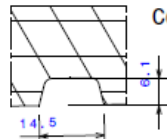
Coupe F-F



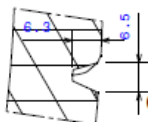
Coupe E-E



Coupe D-D



Coupe C-C



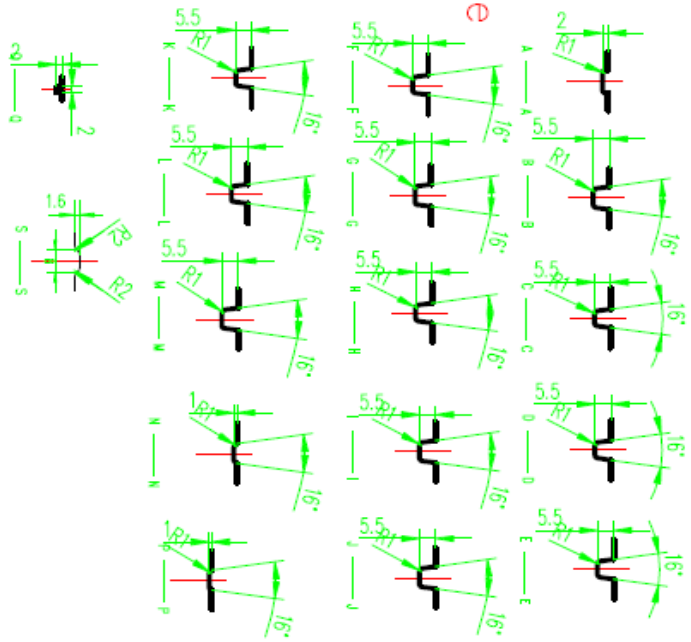
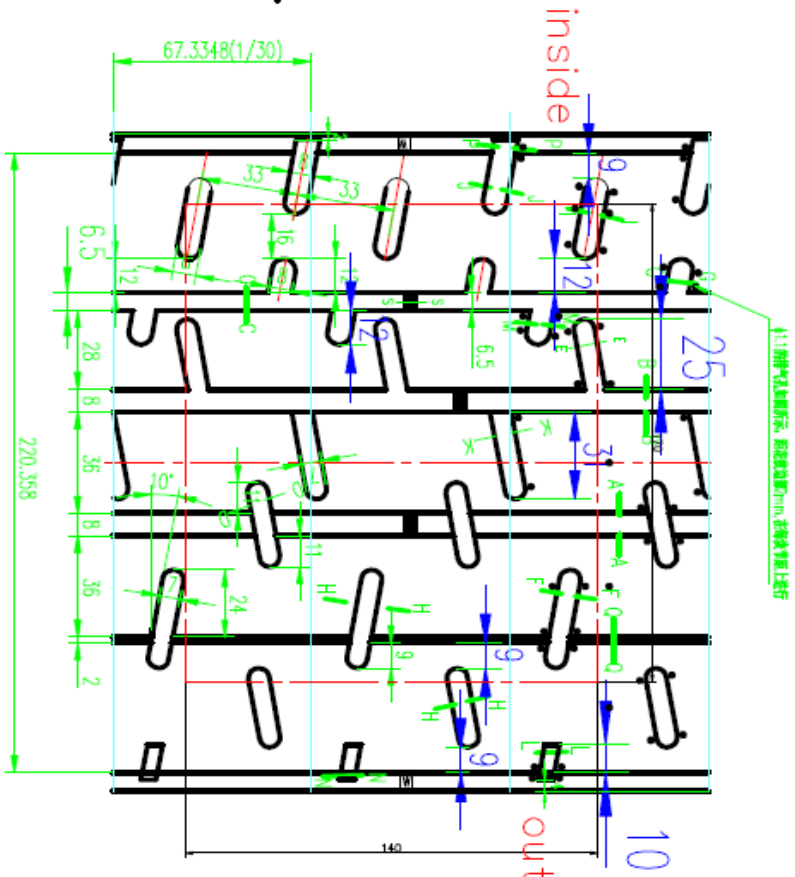
Coupe A-A

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DMACK Tyres

18" - 225/45-18

GROOVES SURFACE AREA=5707.86 mm²
 CONTROL SURFACE =23800 mm²
 5707.86/23800=23.9833%



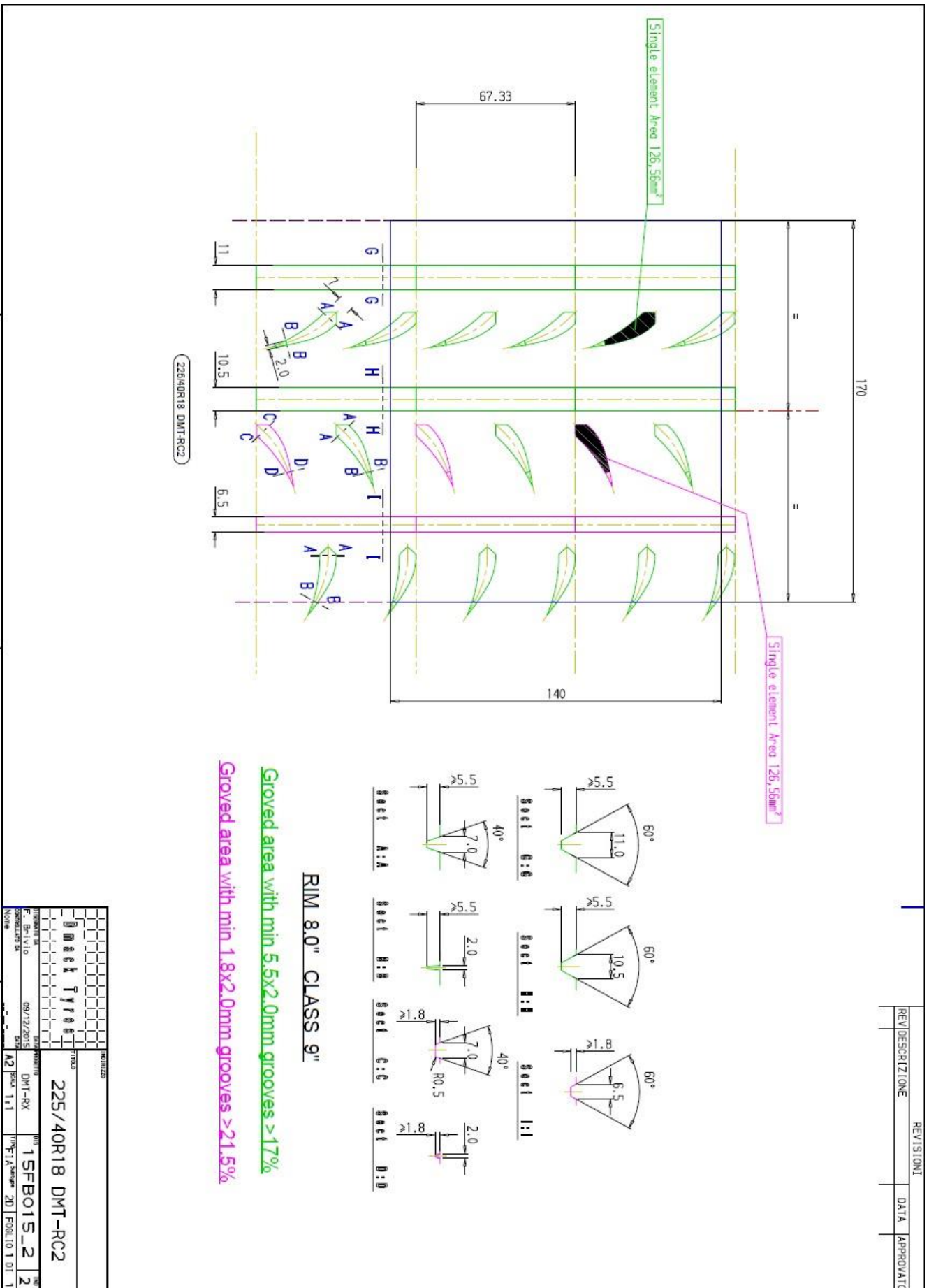
设计	签名	日期	名称	图号
制图			PATTERN	
校对			材料	重量
审核			重量	比例
工艺			数量	备注
批准			Dmack Tyre Ltd	

DMACK Tyres

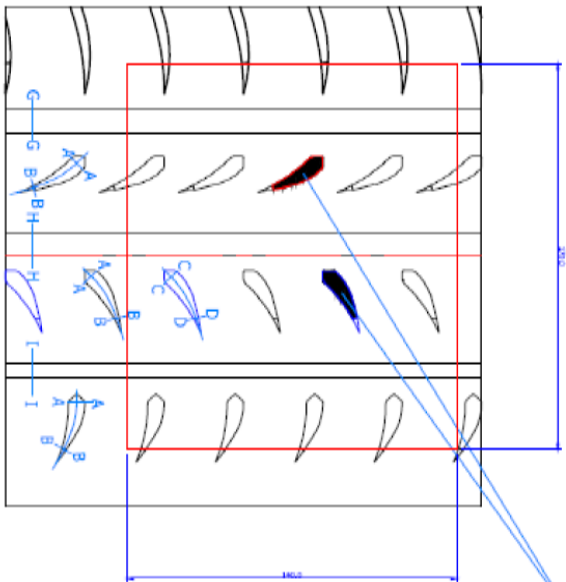
18" - 225/40-18

67.3348(1/30)

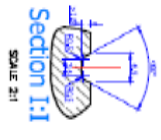
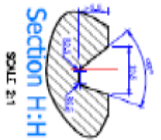
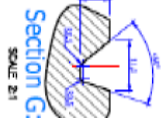
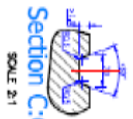
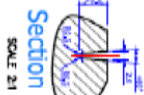
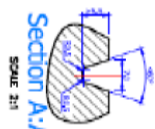
18" - 225/40-18



18" - 225/40-18



Single element
area 125,5x56mm²



RIM 8.0" Class 9"

GROOVED AREA WITH MIN. 1.8x2.0mm GROOVES >21.5%

GROOVED AREA WITH MIN. 5.5x2.0mm GROOVES >17.0%

DRAWING REFERENCES

APPROVAL

DIRECTIONS

MM

VERBALE

225/40 R18 DMT RC22 - FIA Homologation table

DMACK TYRES - ENGLAND.

ISSUE	MODIFICATION	DATE	SIGN.
1			



SCALE: 1:1, 2:1, 3:1

DMACK 2012/2013 (FIA F18)

16FB037

DRAWING REFERENCES	APPROVAL

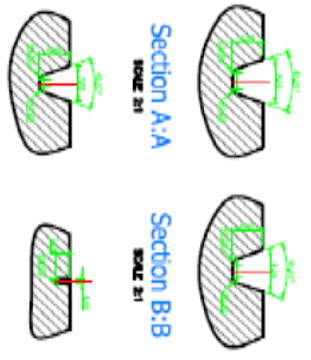
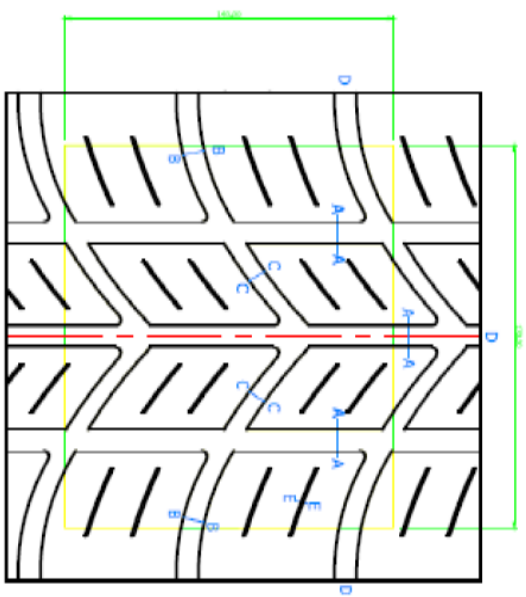
DIFFERENCES	NO	REASON

225/40R18 Ewet - Homologation details

DMACK TYRES - ENGLAND.

SCALE	MODIFICATION	DATE	SIGN

Tread Pattern Detail
SCALE 1:1



Section A:A
SCALE 1:1

Section B:B
SCALE 1:1

Section C:C
SCALE 1:1

Section E:E
SCALE 1:1

RIM 8,0" Class 9"

GROOVED AREA WITH MIN. 5.5x2.0mm GROOVES > 27.5%

17" - 205/45-17

Single element area 93.7mm²

RIM 7.0" Class 8"

GROOVED AREA WITH MIN. 1.8x2.0mm GROOVES > 21.5%

GROOVED AREA WITH MIN. 5.5x2.0mm GROOVES > 17.0%

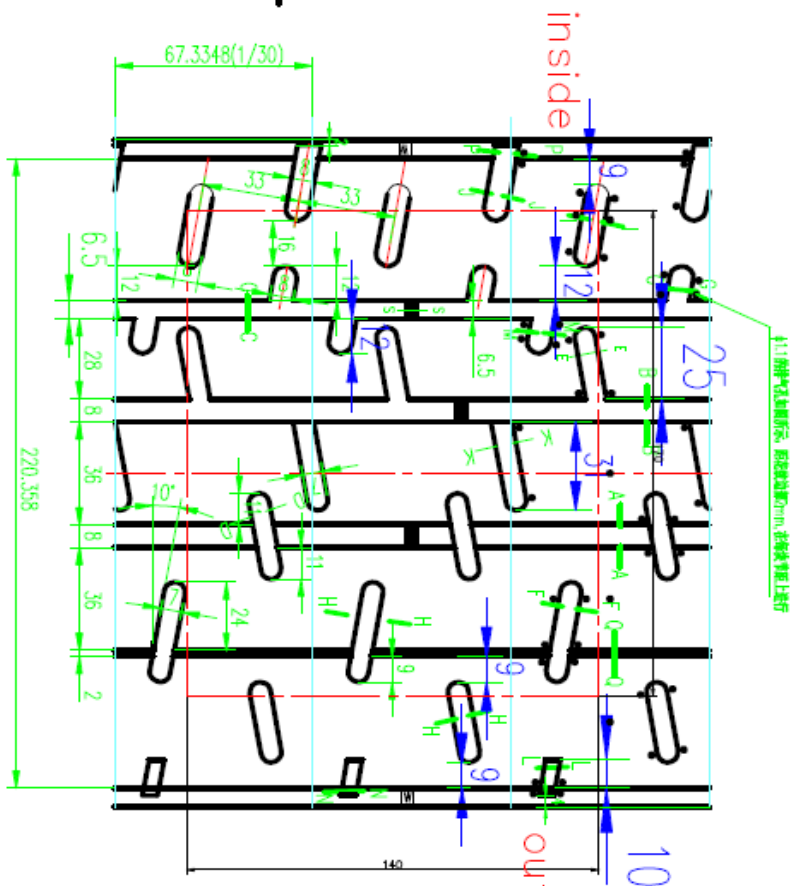
DRAWING REFERENCES	APPROVAL	DIMENSIONS	DESCRIPTION
		MM	205/45 R17 DMT RC2 - FIA Homologation details
		MATERIAL	DMACK TYRES - ENGLAND

I	MODIFICATION	DATE	SIGN
1			

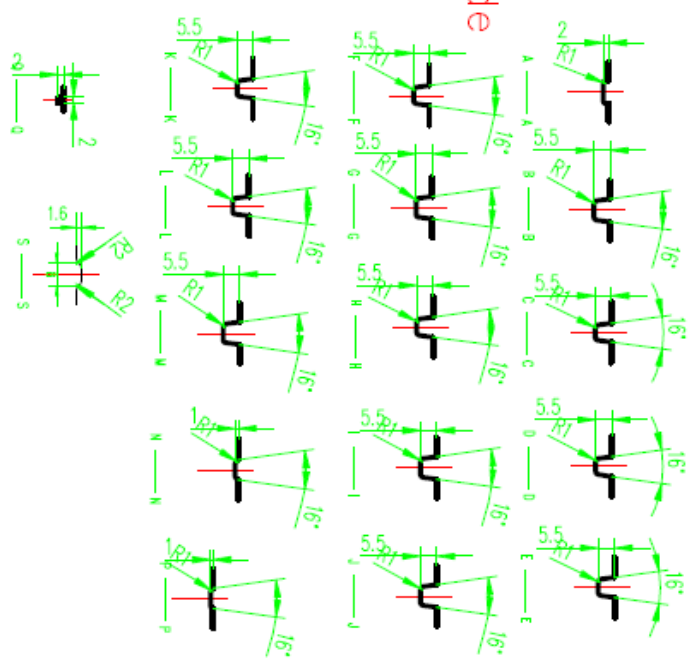
DMACK	SCALE: 1:1	DATE: 21.04.2016
	1:50	16FB031

DMACK Tyres

17" - 225/45-17

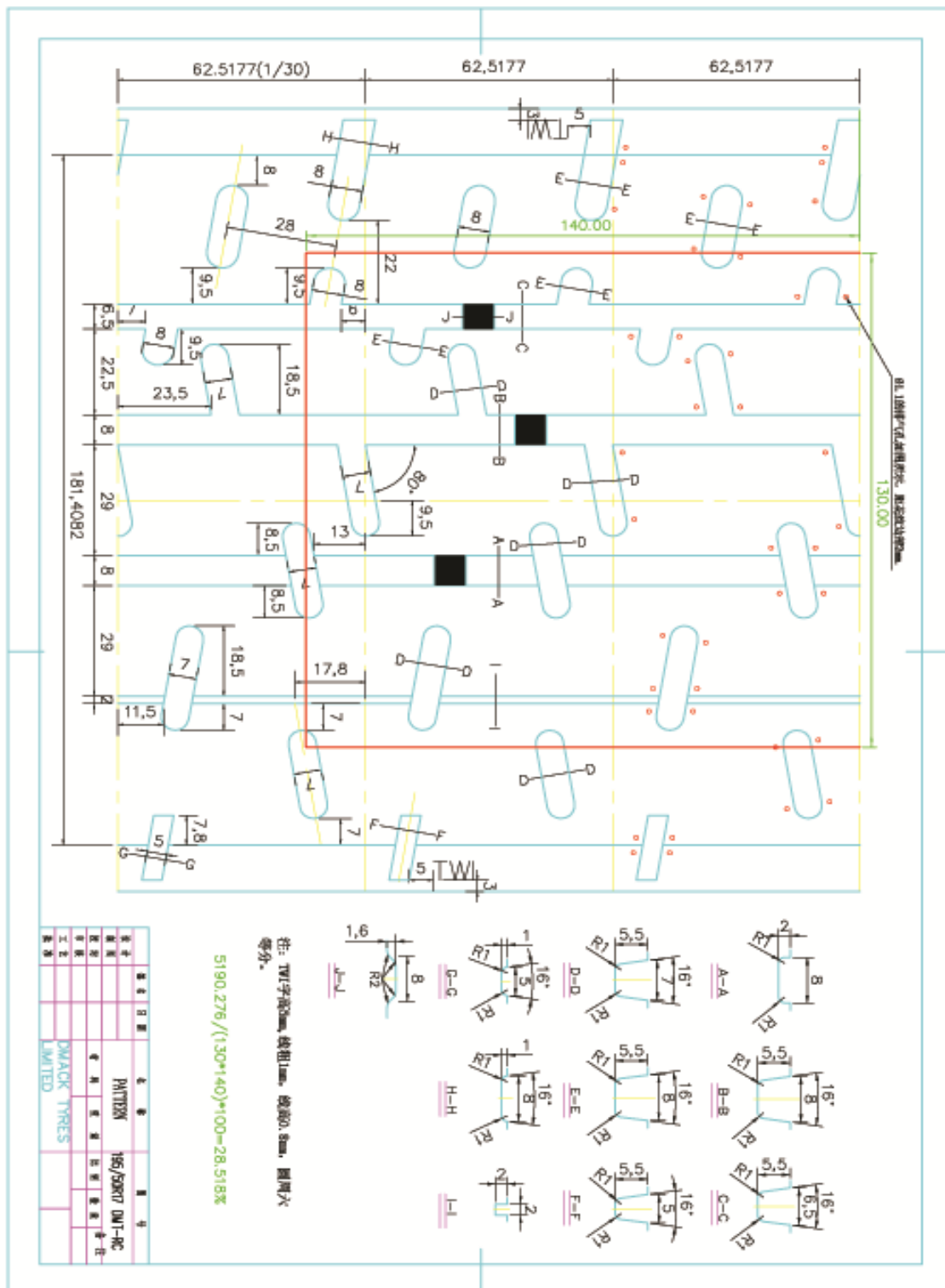


GROOVES SURFACE AREA=5707.86 mm²
 CONTROL SURFACE =23800 mm²
 5707.86/23800=23.9837%

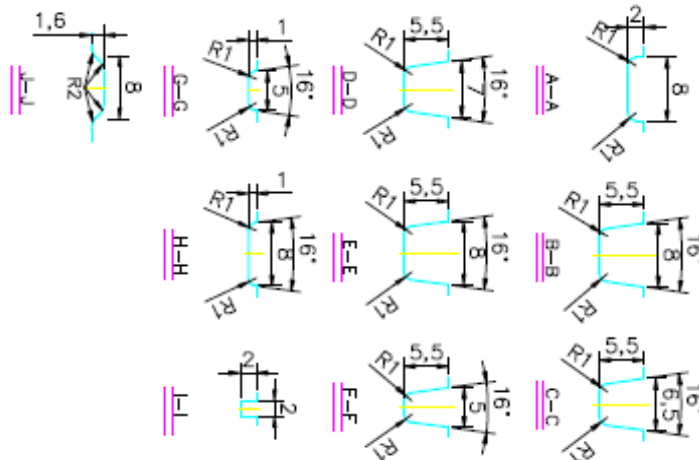
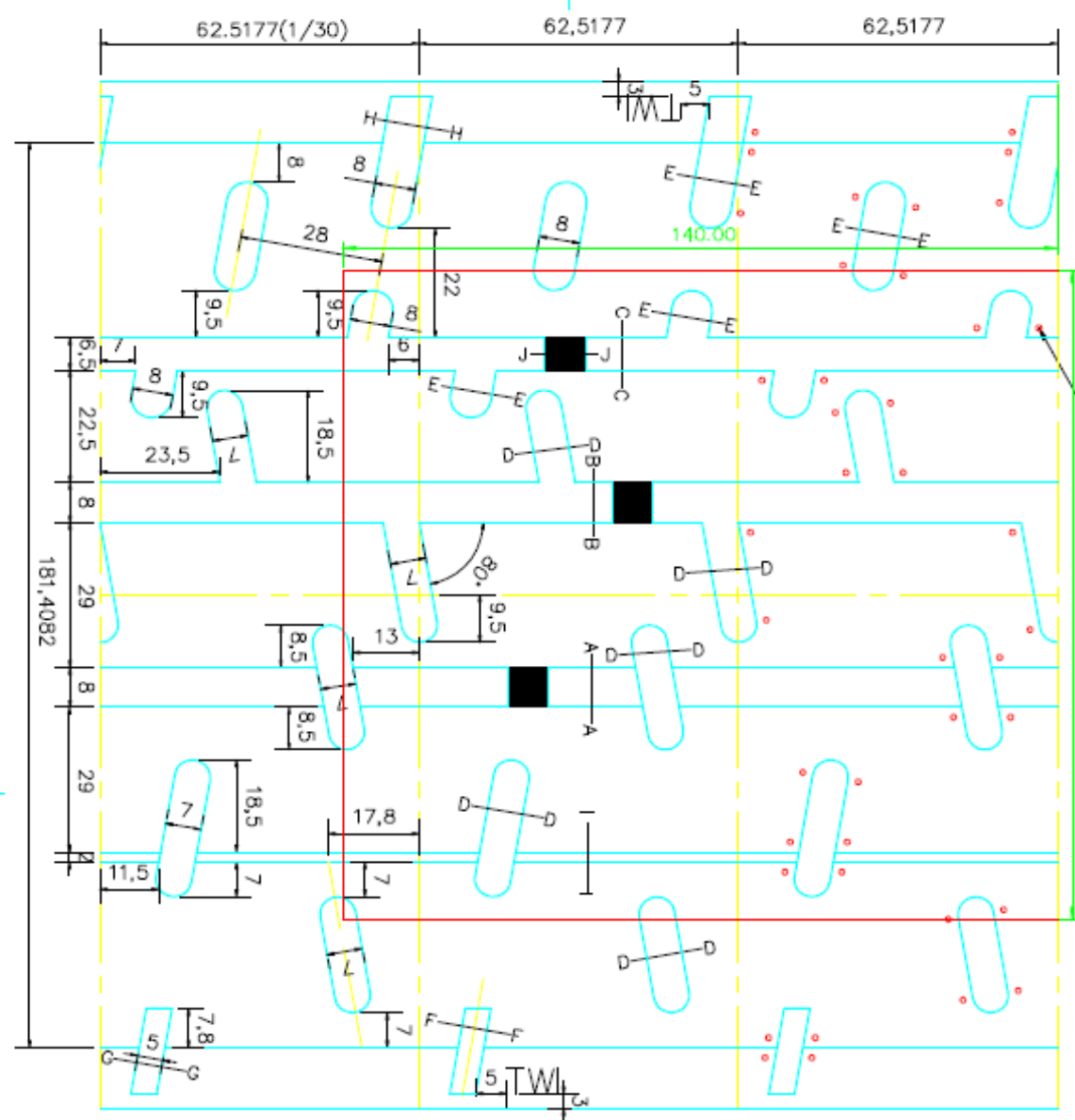


设计	制图	校对	审核	工艺	批准
名称		日期		图号	
PATTERN				225/45R17 DMT-RC	
材料		重量		比例	
数量		备注			
Dmcrack Tyre Ltd					

17" - 195/50-17



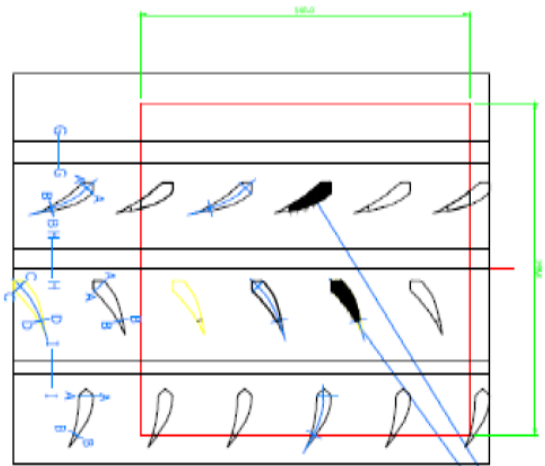
16" - 195/50-16



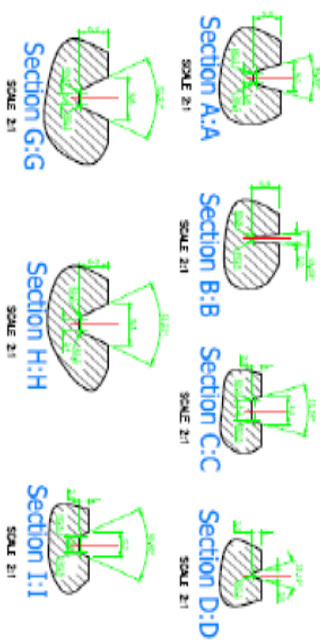
注: TWI字高5mm, 线距1mm, 线高0.8mm, 圆角六等分。
 $5190.276 / (130 * 140) * 100 = 28.518\%$

规格	品牌	规格	品牌
规格	PATTERN	规格	品牌
规格	195/50R16 DMF-RC	规格	品牌
规格	DMACK TYRES	规格	品牌
规格	LIMITED	规格	品牌

16" - 195/50-16



Single element
area 93.47mm²



RIM 7.0" Class 8"

GROOVED AREA WITH MIN. 1.8x2.0mm GROOVES >21.5%

GROOVED AREA WITH MIN. 5.5x2.0mm GROOVES >17.0%

DRAWING REFERENCES		APPROVAL	

DESIGNER	DATE	DESCRIPTION

195/50 R16 DMT RC2 - FIA Homologation table
DMACK TYRES - ENGLAND.

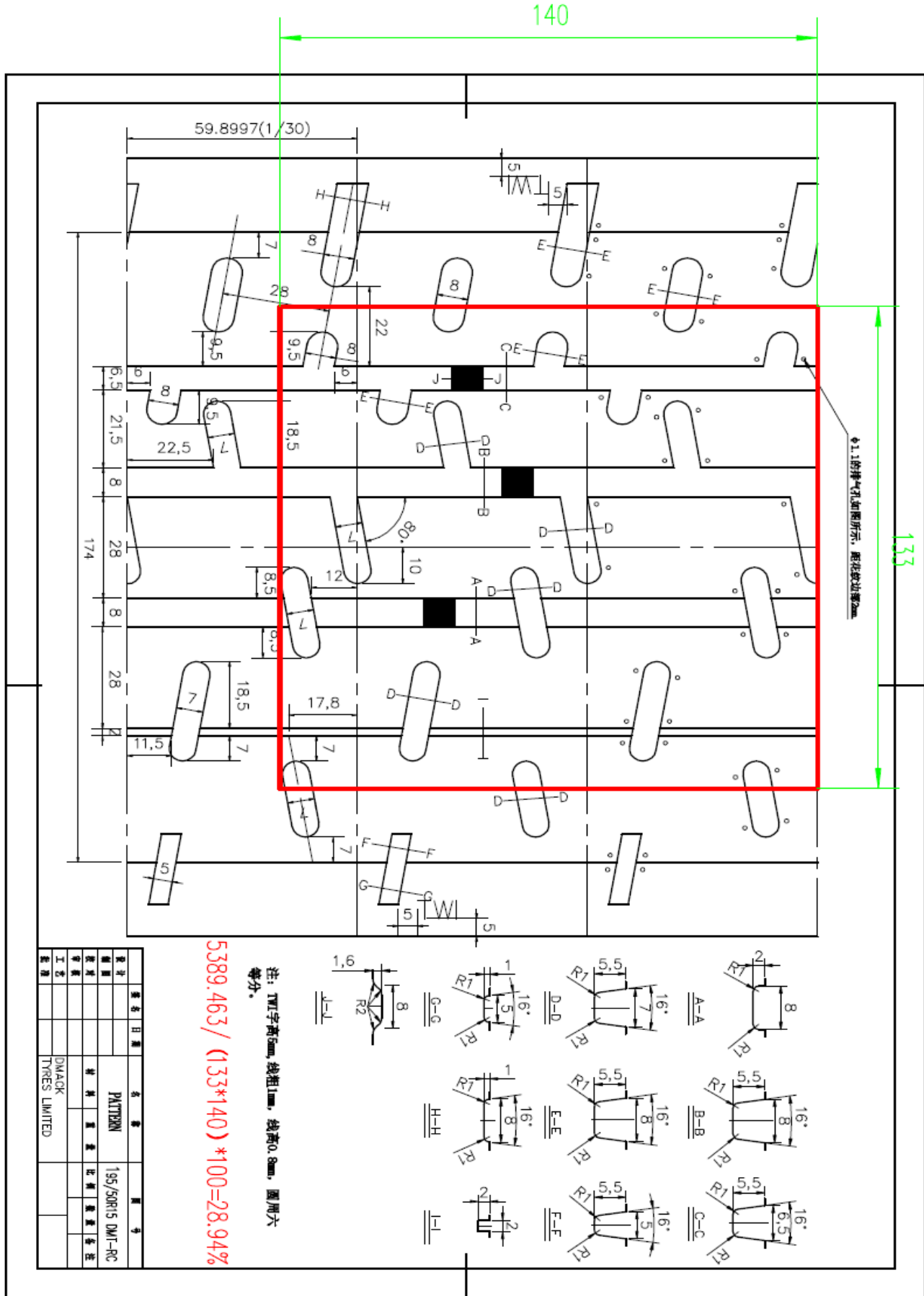
DMACK TYRES - ENGLAND.

ISSUE	MODIFICATION	DATE	SIGN

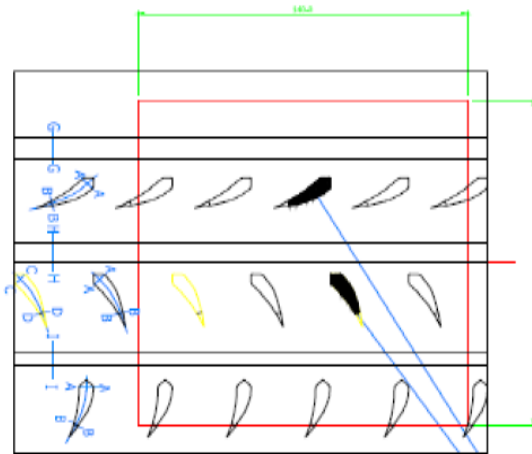
DMACK

SCALE: 1:1, 2:1, 3:1
Dwg. DRAWN BY: R. F. 19/04
17/8/03

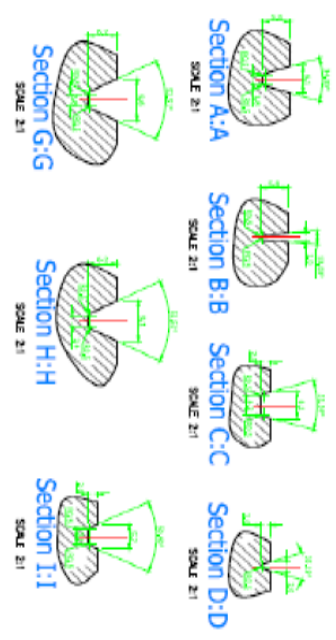
15" - 195/50-15



15" - 195/50-15



Single element
area 93.47mm²



RIM 7.0" Class 8"

GROOVED AREA WITH MIN. 1.8x2.0mm GROOVES >21.5%

GROOVED AREA WITH MIN. 5.5x2.0mm GROOVES >17.0%

DRAWING REFERENCES		APPROVAL	

DESCRIPTION	DATE
195/50 R15 DMT RC2 - FIA Homologation table	
DMACK TYRES - ENGLAND	

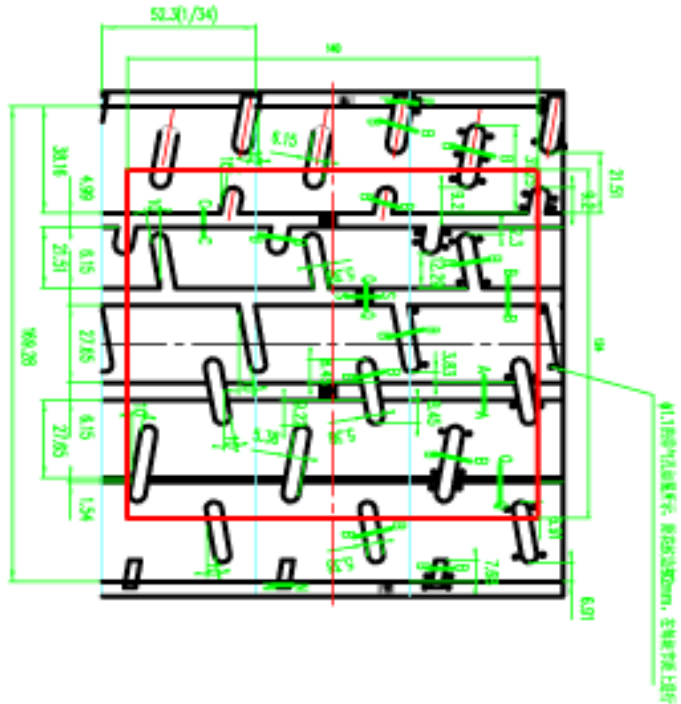
DMACK Tyres Ltd
1000, The Drive, Boreham, Essex, SSO 1 5LW, UK
Tel: +44 (0)1702 333333 Fax: +44 (0)1702 333334
www.dmacktyres.com

ISSUE	MODIFICATION	DATE	SIGN
1		14.12.11	

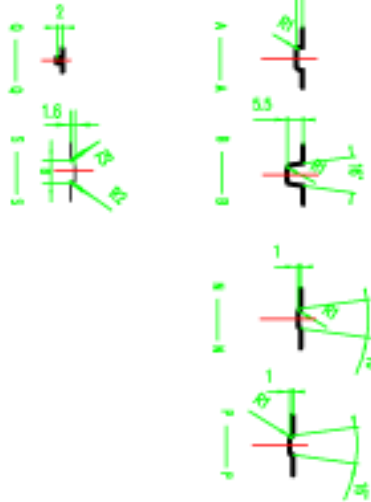


SCALE: 1:1, 2:1, 3:1
CNR APPROVED FOR FIA/MS
L7FB004

14" - 175/60-14



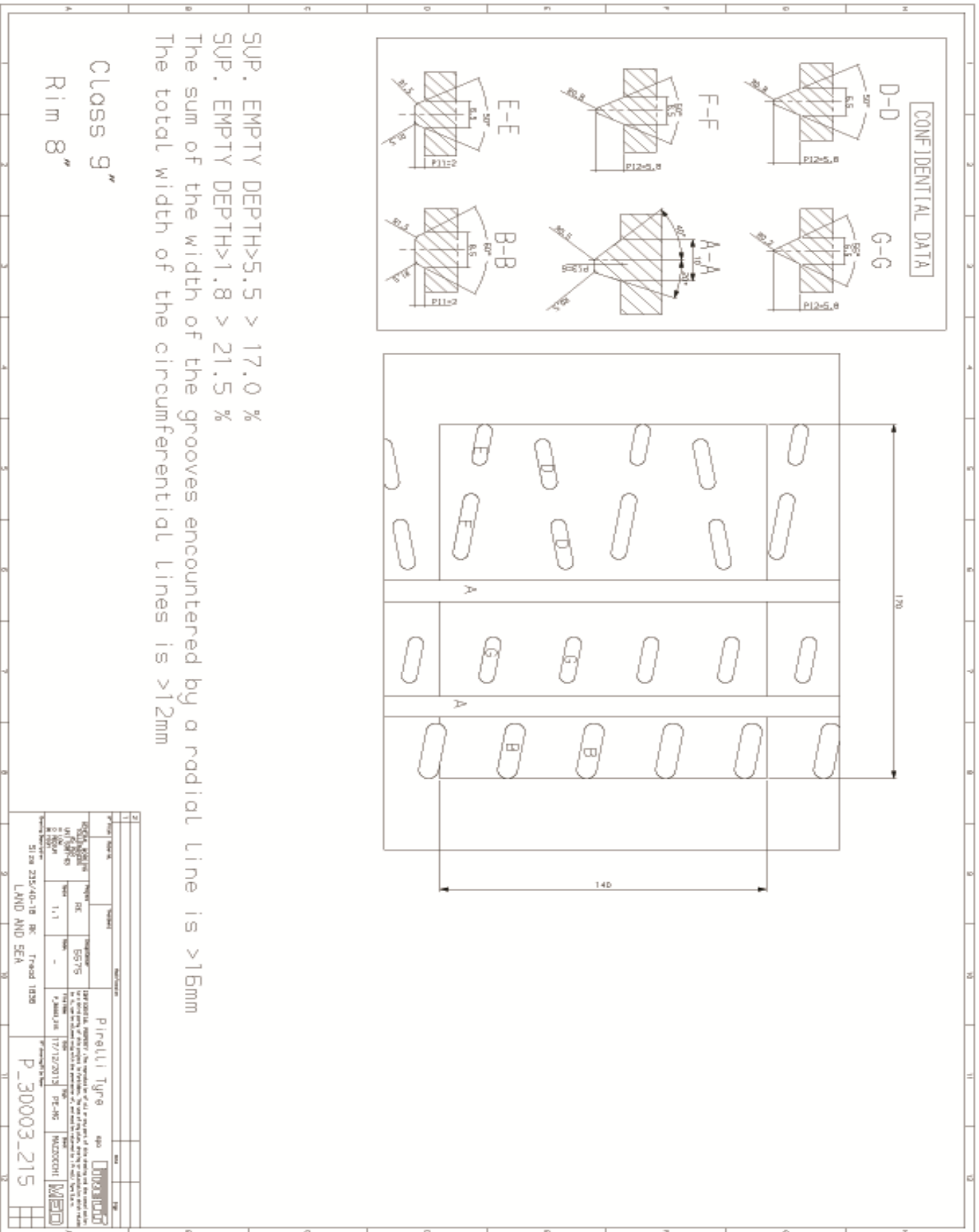
GROOVES SURFACE AREA=4292.808;
CONTROL SURFACE 17360;
4292.808/17360=24.728%

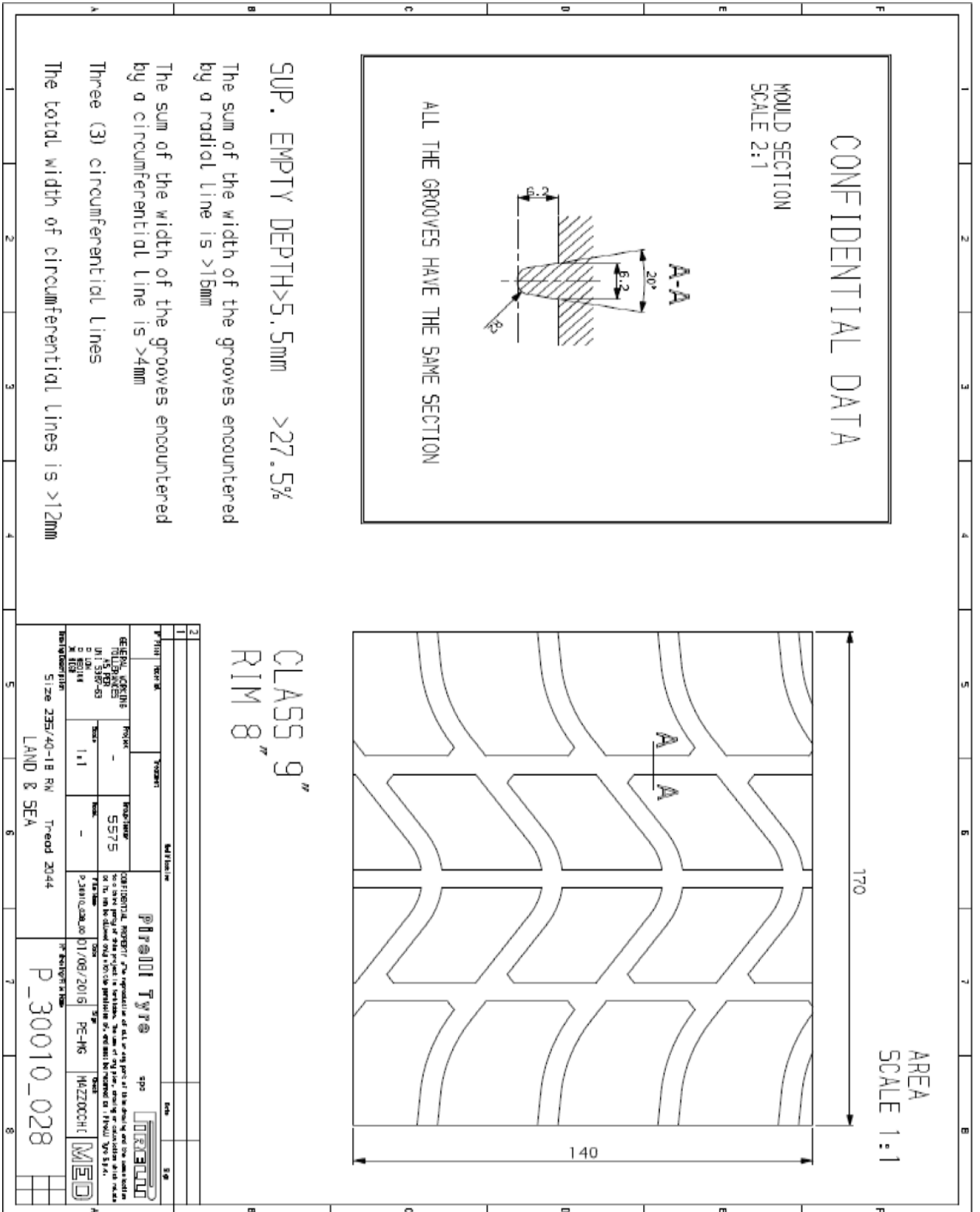


注：TWI字高3mm，线粗1mm，线高0.8mm，圆周六等分

设计	审核	日期	名称	图号
制图			TREAD	175/60R14 DM-T-RC
校核			材料	比例
审核			重量	数量
工艺				备注
投带			DMACK TYRES LTD	

18" - 235/40-18

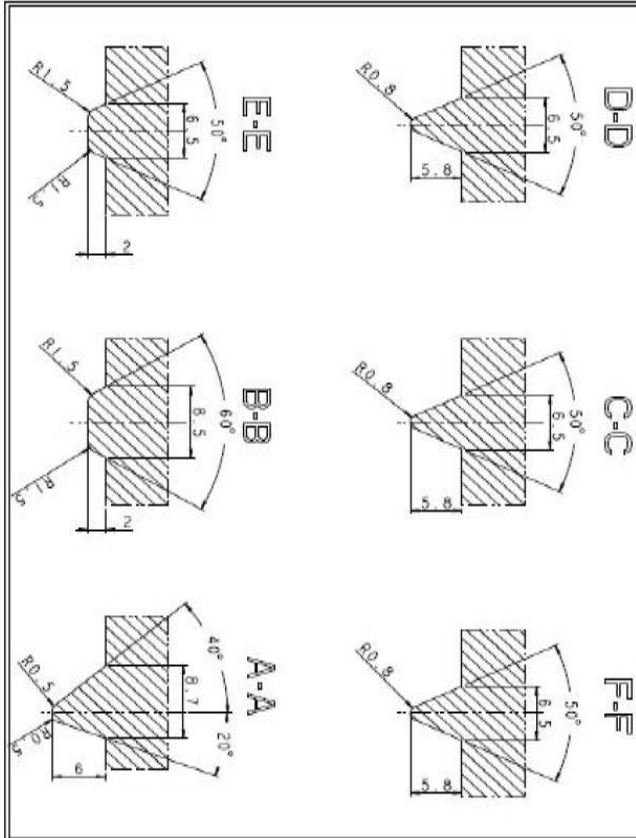




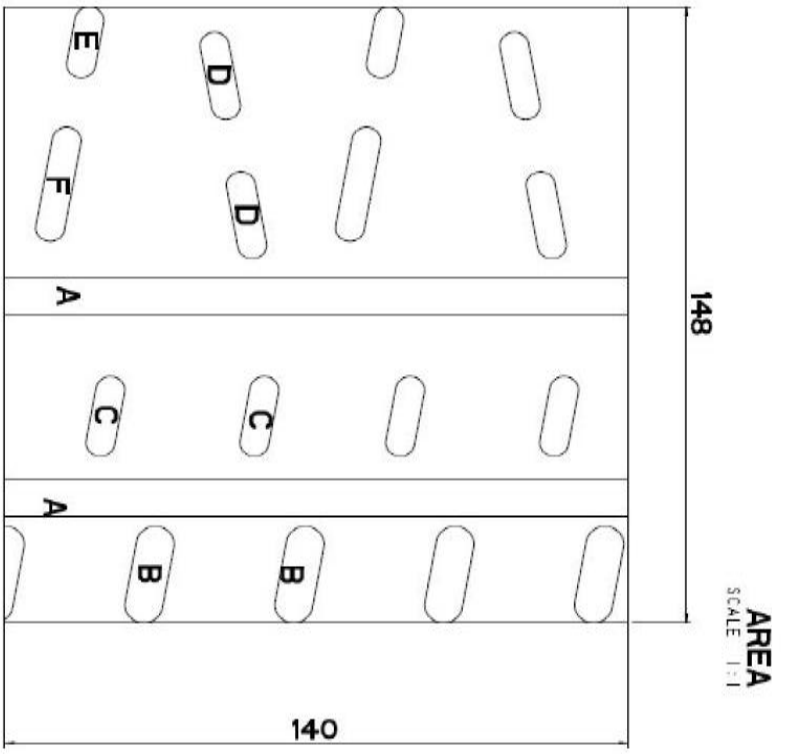
17" - 205/45 - 17

CONFIDENTIAL DATA

MOULD SECTION
SCALE 2:1



SUP. EMPTY DEPTH > 5.5 > 17%
 SUP. EMPTY DEPTH > 18 > 21.5%
 The sum of the width of the grooves encountered by a radial line is > 16mm
 The total width of circumferential lines is > 12mm



CLASS 8"
RIM 7"

1	2	3	4	5	6	7	8
GENERAL INFORMATION		Treadmark		Modification			
Model	Project	Geometry	5575	Pirelli Tyre spa			
Ref. 205/45	State	Material	PU	Date			
Ref. 1:1	Scale	PU	1838	Signature			
Drawing description		Size 205/45-17 RK Tread 1838		P_300004_292			
LAUD & SEA		Tread 1838		Date			
Pirelli Tyre spa		Pirelli Tyre spa		Date			
19/03/2014		19/03/2014		Date			
PE - WC		MAZZOCCHI		Date			
PRO/E		PRO/E		Date			

17" - 205/45 - 17

CONFIDENTIAL DATA

MOULD SECTION
SCALE 2:1

A-A
28
7.2

ALL THE GROOVES HAVE THE SAME SECTION

SUP. EMPTY DEPTH > 5.5mm > 27.5%

The sum of the width of the grooves encountered by a radial line is > 16mm

The sum of the width of the grooves encountered by a circumferential line is > 4mm

Three (3) circumferential lines

The total width of circumferential lines is > 12mm

148

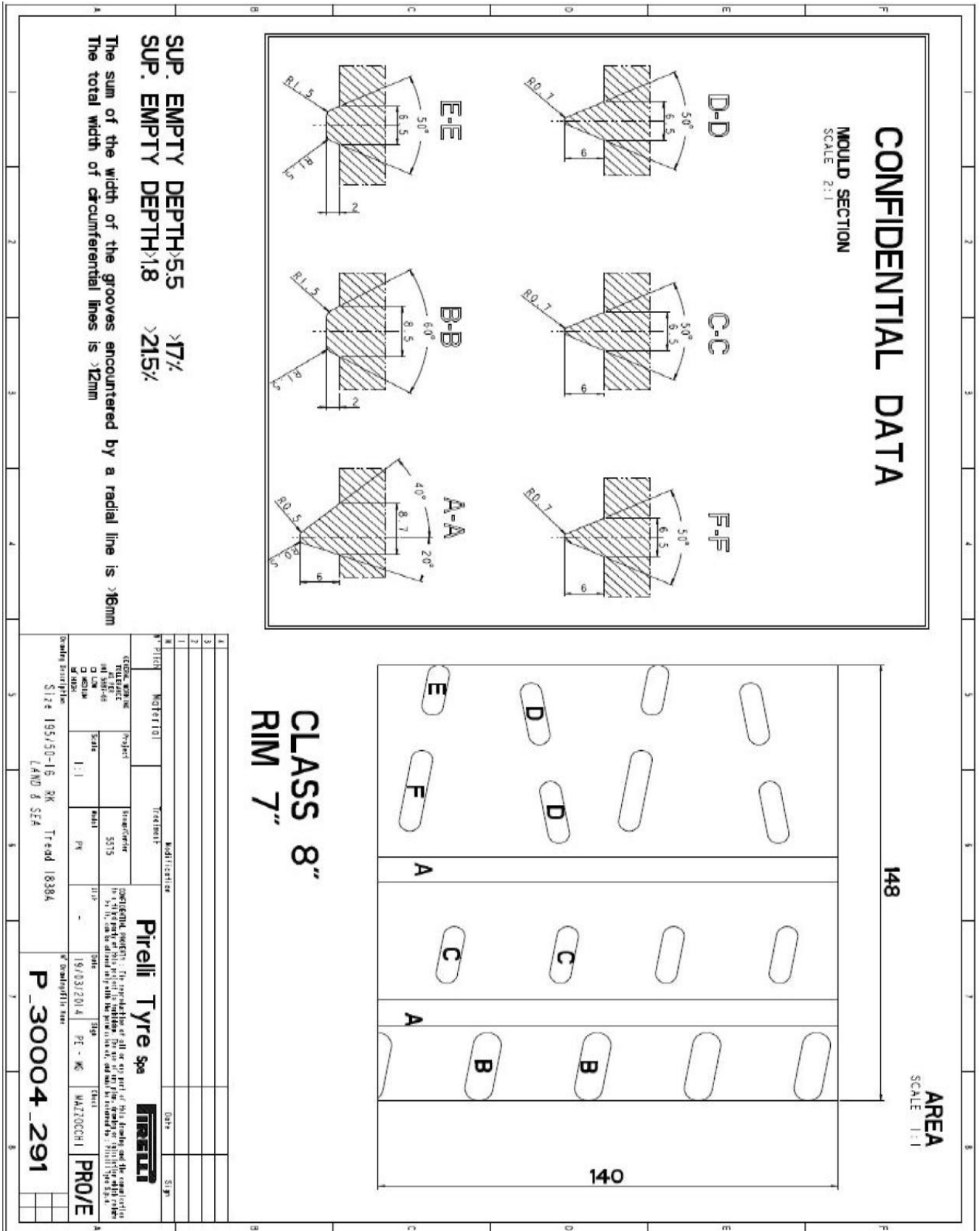
140

AREA
SCALE 1:1

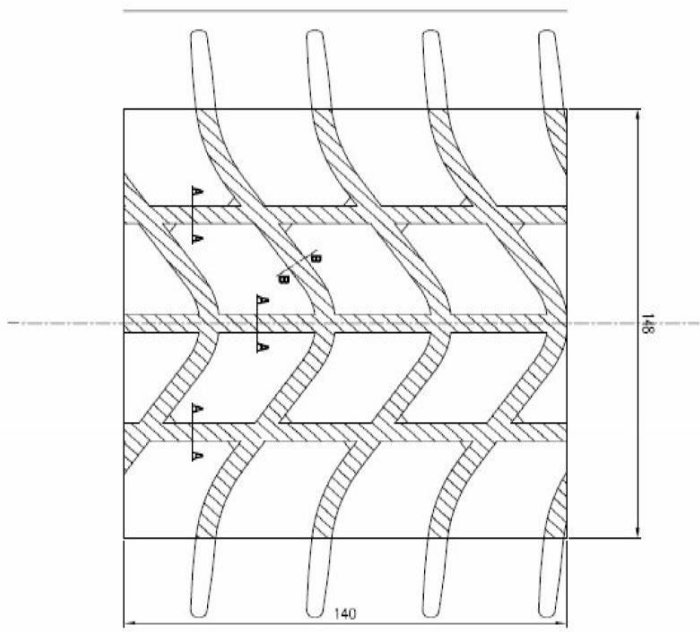
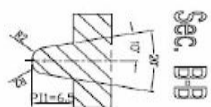
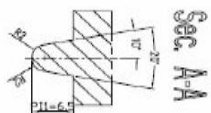
CLASS 8"
RIM 7"

GENERAL GROOVING	TREAD	FUNCTION	CONFIDENTIAL PROPERTY
MODEL NAMES AS PER UNI 5381-83		5575	The reproduction of all or any part of the drawing and the construction of a model of any part of the project is forbidden. The use of any copy, drawing or construction which is not approved by the author is forbidden and will be considered as a violation of the law.
DATE	SCALE	DATE	
1-1	-	15/09/2020	
Project description Size 205/45 R17 RM1 LAND & SEA	Tread 2044	Project description P_30026_939	





CONFIDENTIAL DATA



SUP. EMPTY DEPTH>5.5 > 17.0 %
 SUP. EMPTY DEPTH>1.8 > 21.5 %
 The sum of the width of the grooves encountered by a radial line is >16mm
 The total width of the circumferential lines is >12mm

Class 8"
 Rim 6.5"

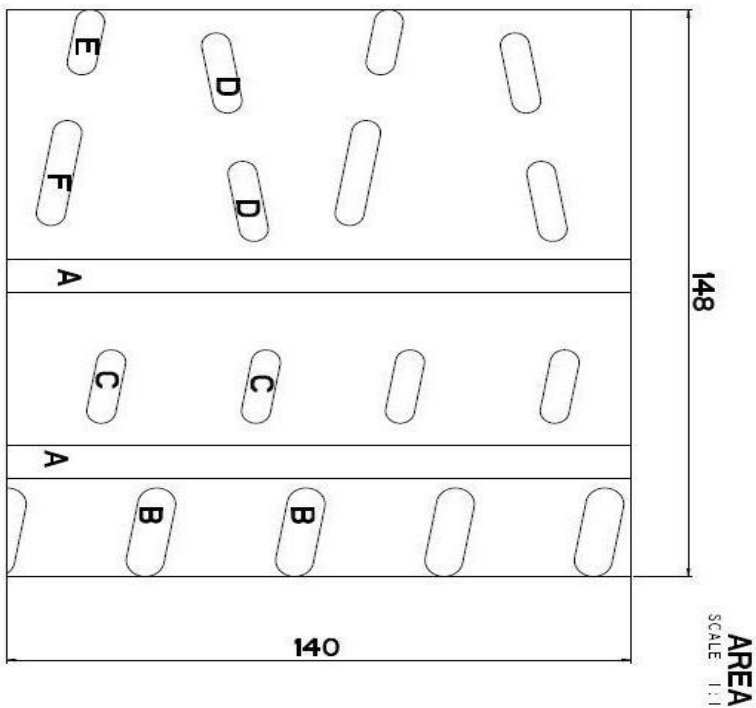
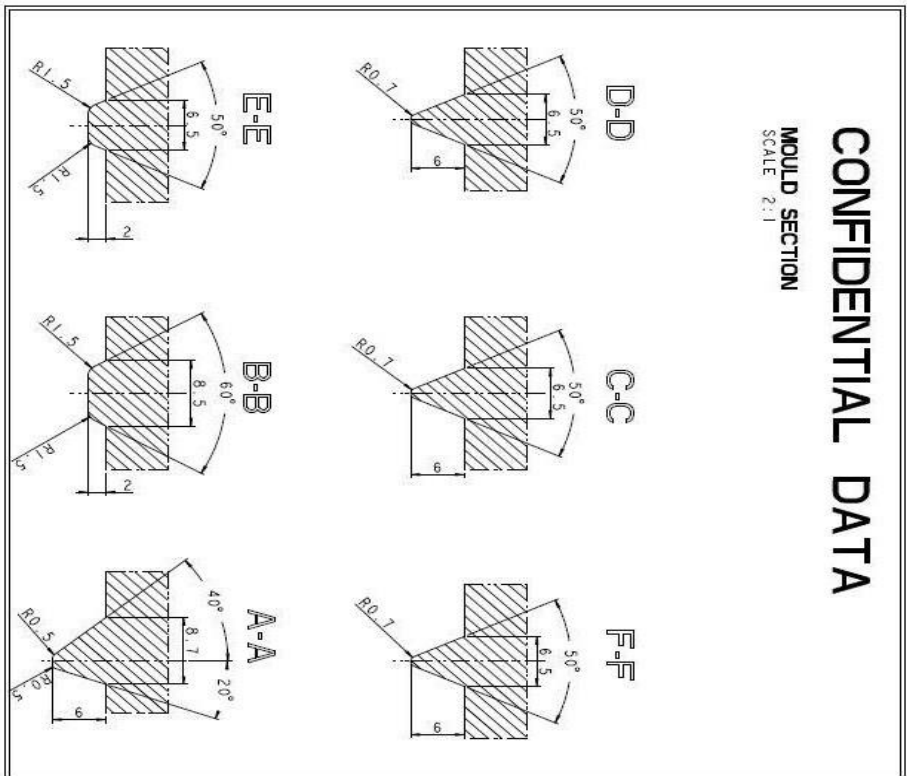
1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8	9	10	11	12
ORIGINAL MANUFACTURER PIRELLI 2015/05/2015		CONFIDENTIAL DOCUMENT CONFIDENTIAL DOCUMENT U.S. Pat. No. 8,000,000		Pirelli Type 102/110/112		DATE 01/05/2015		EV SR		SR MED	
Size 195/50 R16 RW Tread 2044 LAND AND SEA				P_30016_172							



15" - 195/50-15

CONFIDENTIAL DATA

MOULD SECTION
SCALE 2:1



CLASS 8"
RIM 7"

SUP. EMPTY DEPTH > 5.5 > 17%
SUP. EMPTY DEPTH > 1.8 > 21.5%
The sum of the width of the grooves encountered by a radial line is > 16mm
The total width of circumferential lines is > 12mm

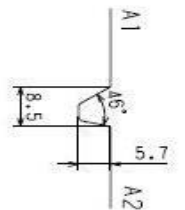
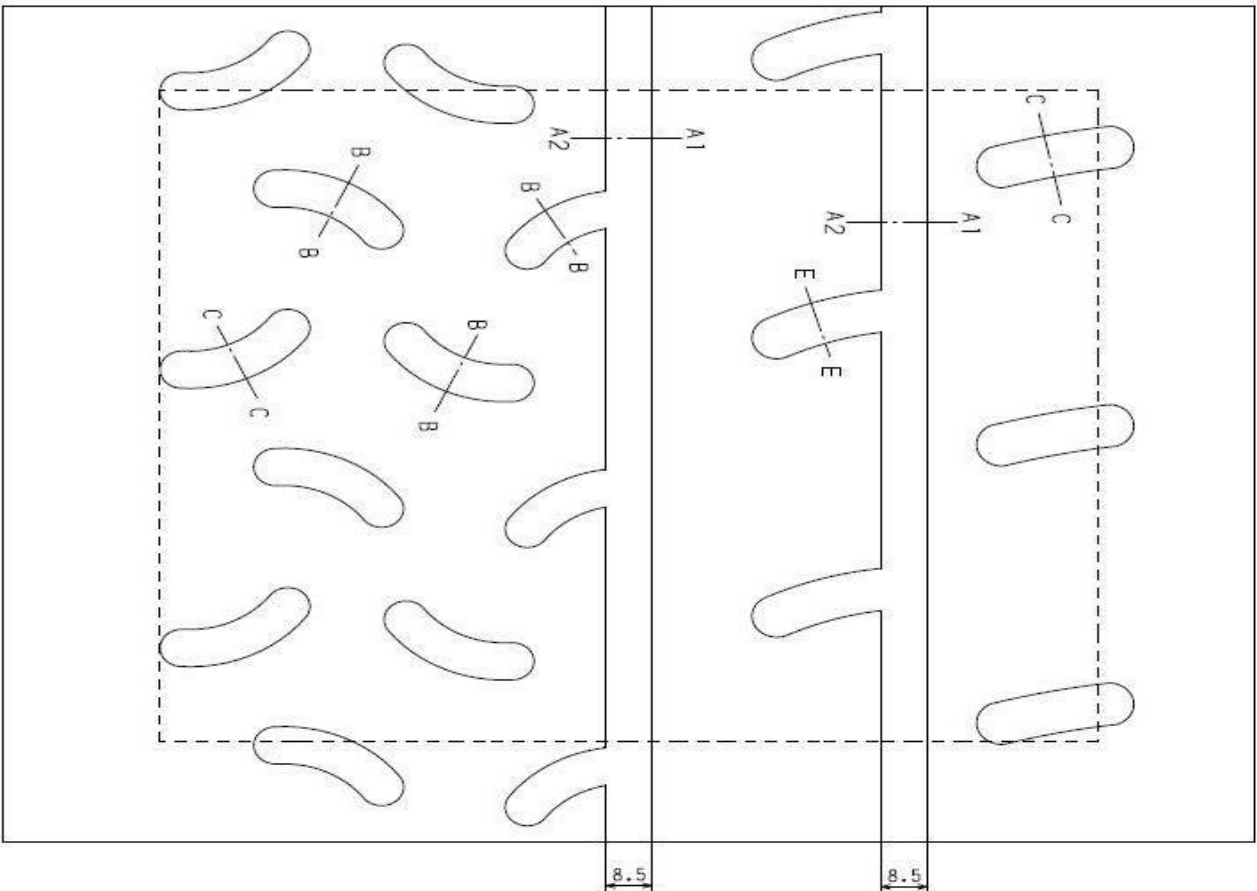
N°	ITEM	MATERIAL	Treatment	Modification	Date	Sign
1						
2						
3						
4						
5						
6						
7						
8						

DESIGNER PROJECT DATE SCALE D. AREA N. AREA DRAWING NO. SIZE 195/50-15 RK Tread 1838A LAND & SEA	CONFIDENTIAL PROPERTY - The reproduction of all or any part of this drawing and the compilation of a copy of it, in whole or in part, without the written permission of the author is strictly prohibited.	DATE 19/03/2014	SIGNATURE PE - MC MAZZOCCHI	DATE 19/03/2014	SIGNATURE MAZZOCCHI
--------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------	-----------------------------------	--------------------	------------------------

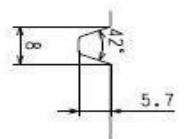
PRO/E

P_300004_290

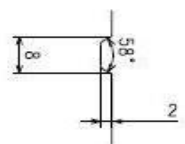
18" - 235/40-18



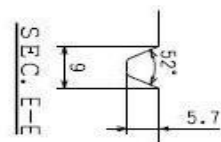
SEC. A1-A2



SEC. B-B



SEC. C-C



SEC. E-E

In the control area
 5.5mm grooves-18.1%
 Total grooves-22.2%

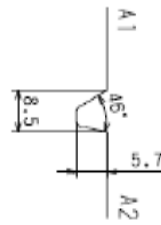
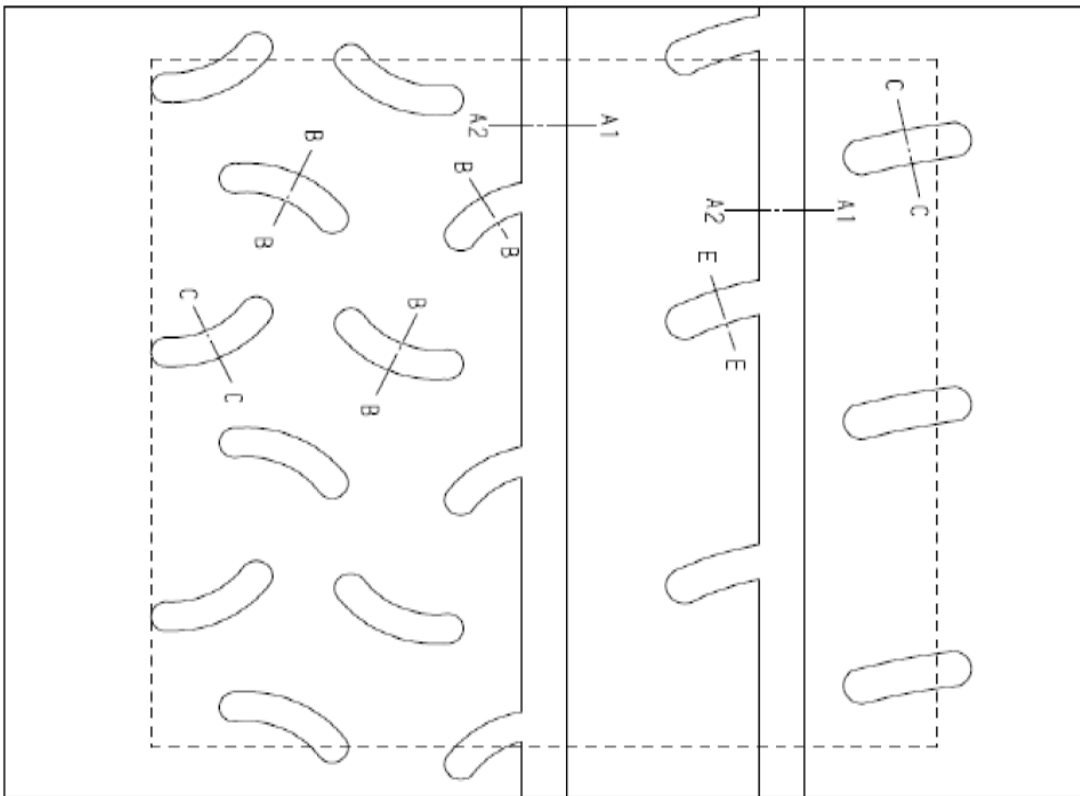
----- Control area 170X140

Tyre weight 9.7kg

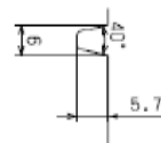
PRODUCT NAME
YOKOHAMA ADVAN A051T

PATTERN NAME
A051A

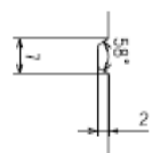
SIZE 210/65DR18



SEC. A1-A2



SEC. B-B



SEC. C-C

SEC. E-E

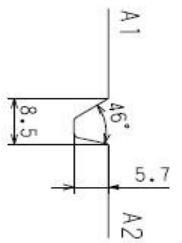
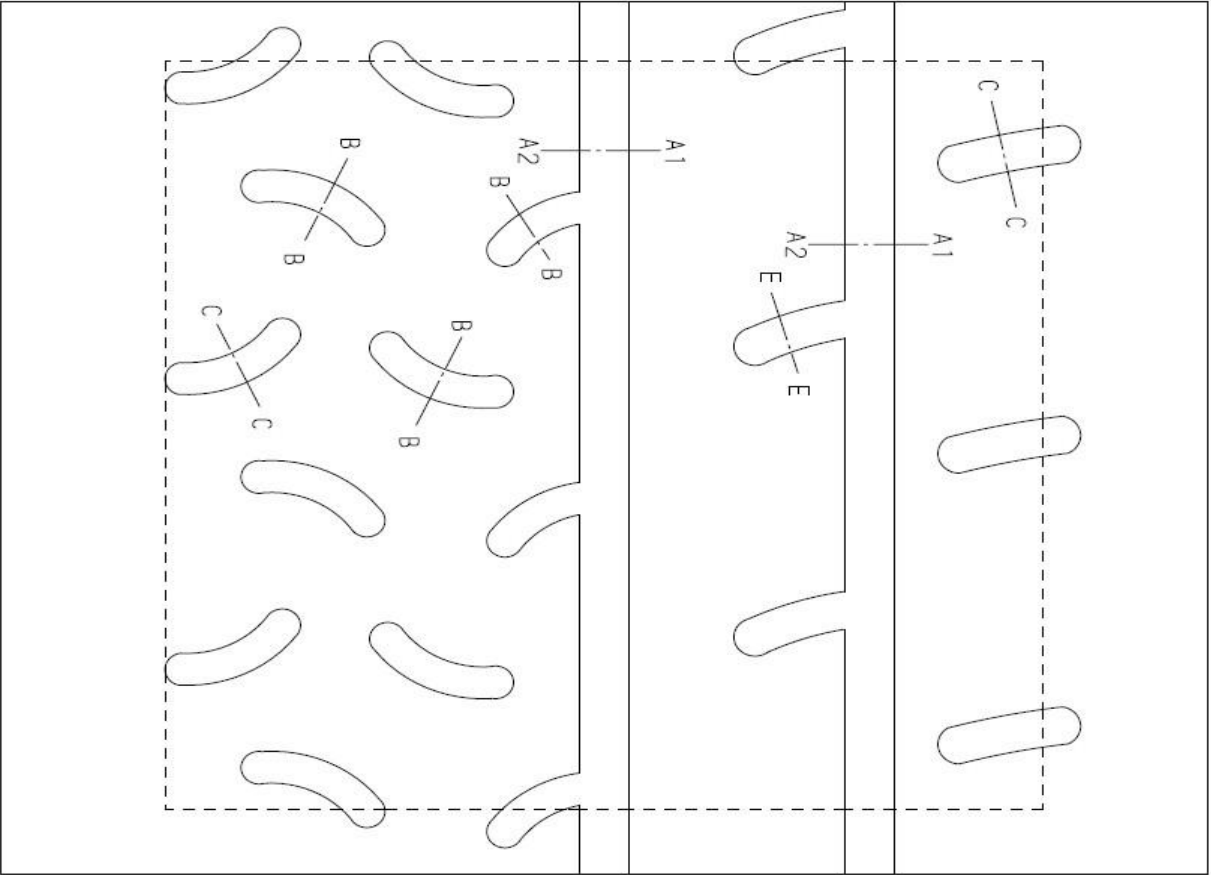
In the control area
 5.5mm grooves-17.9%
 Total grooves-21.6%

----- Control area 170X140

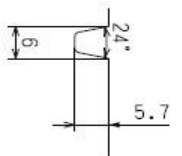
PRODUCT NAME
YOKOHAMA ADVAN A051T

PATTERN NAME
A051A

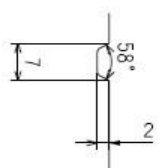
SIZE 210/625R17



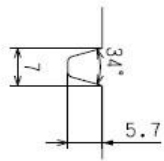
SEC. A1-A2



SEC. B-B



SEC. C-C



SEC. E-E

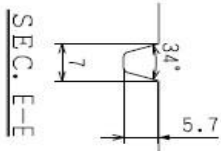
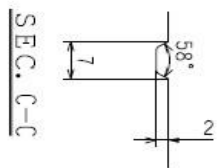
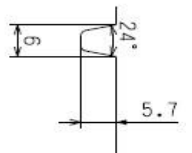
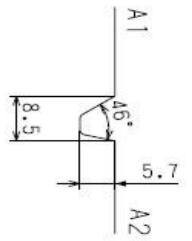
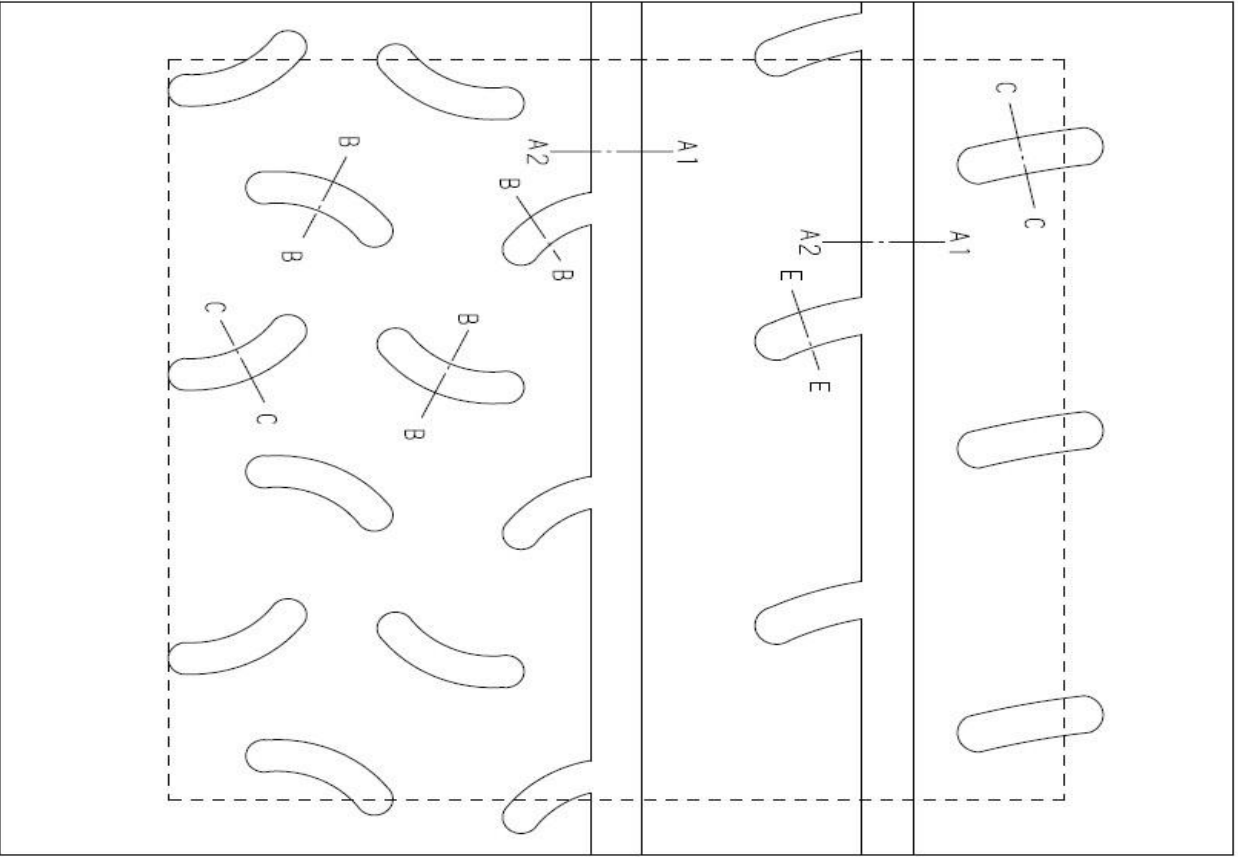
In the control area
 5.5mm grooves-18.2%
 Total grooves-22.0%

----- Control area 148X140

PRODUCT NAME
YOKOHAMA ADVAN A0517

PATTERN NAME
A051A

SIZE 190/625R17



In the control area
 5.5mm grooves-18.1%
 Total grooves-21.9%

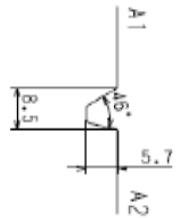
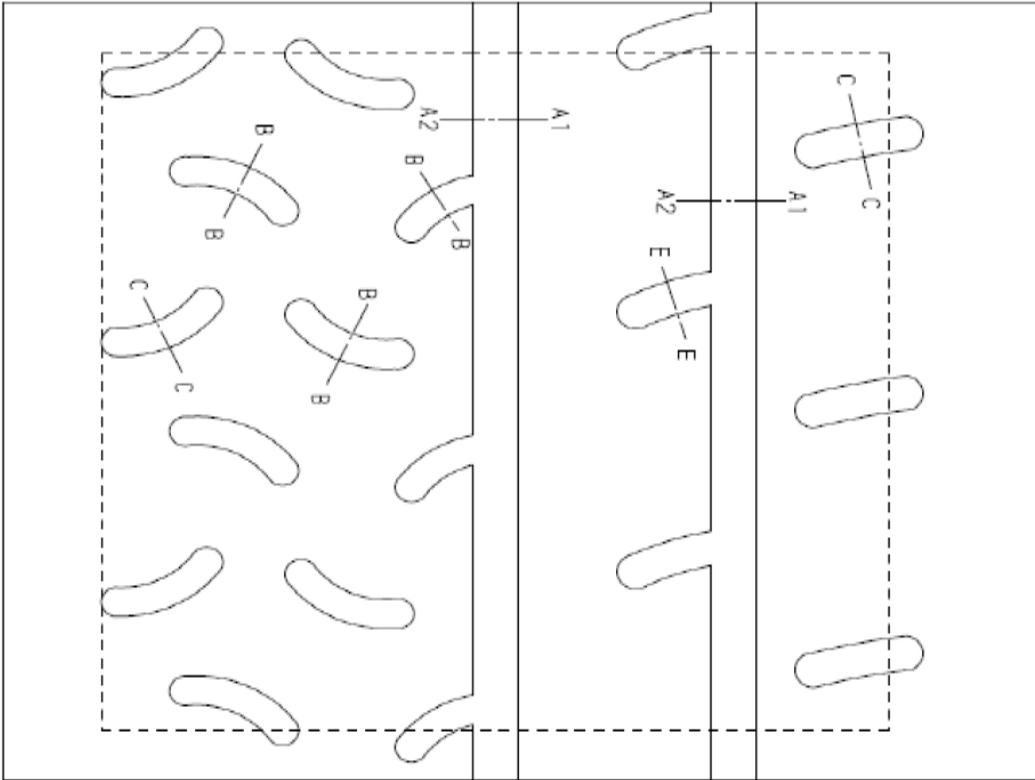
----- Control area 148X140

PRODUCT NAME
YOKOHAMA ADVAN A051T

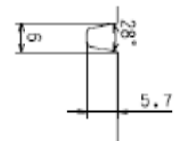
PATTERN NAME
A051A

SIZE 190/600R16

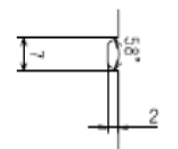
15" - 190/580-15



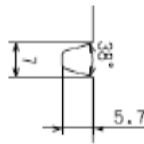
SEC. A1-A2



SEC. B-B



SEC. C-C



SEC. E-E

In the control area
 5.5mm grooves-18.2%
 Total grooves-21.6%

----- Control area 148X140

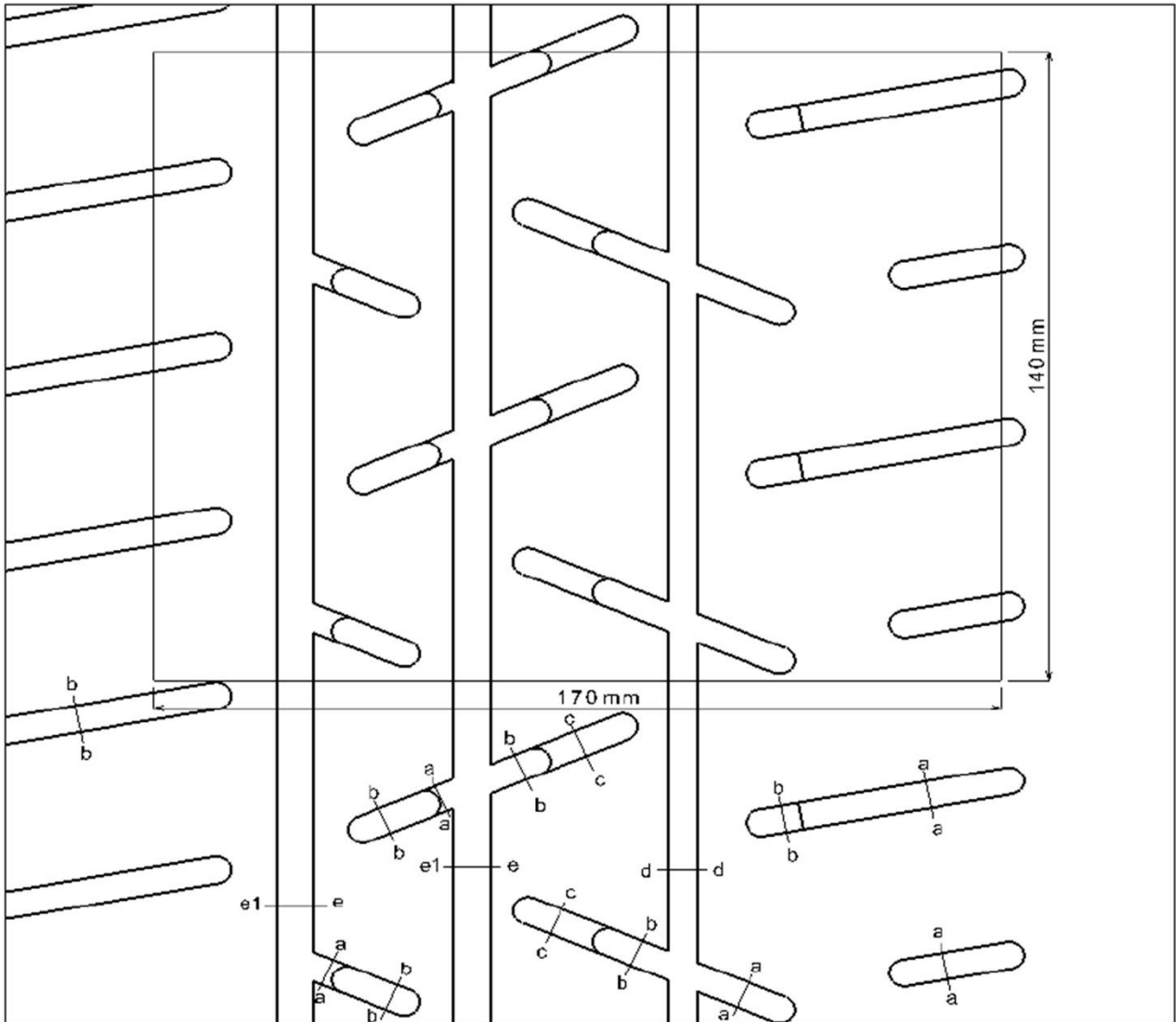
PRODUCT NAME
YOKOHAMA ADVAN AD51T

PATTERN NAME
AD51A

SIZE 190/580R15

18"- 210/650R18

Product: Ventus Z205



Sec. a-a	Sec. b-b	Sec. c-c
Sec. d-d	Sec. e-e1	

Class 9" (Rim 8")

Empty Depth > 5.5mm : 17.07%

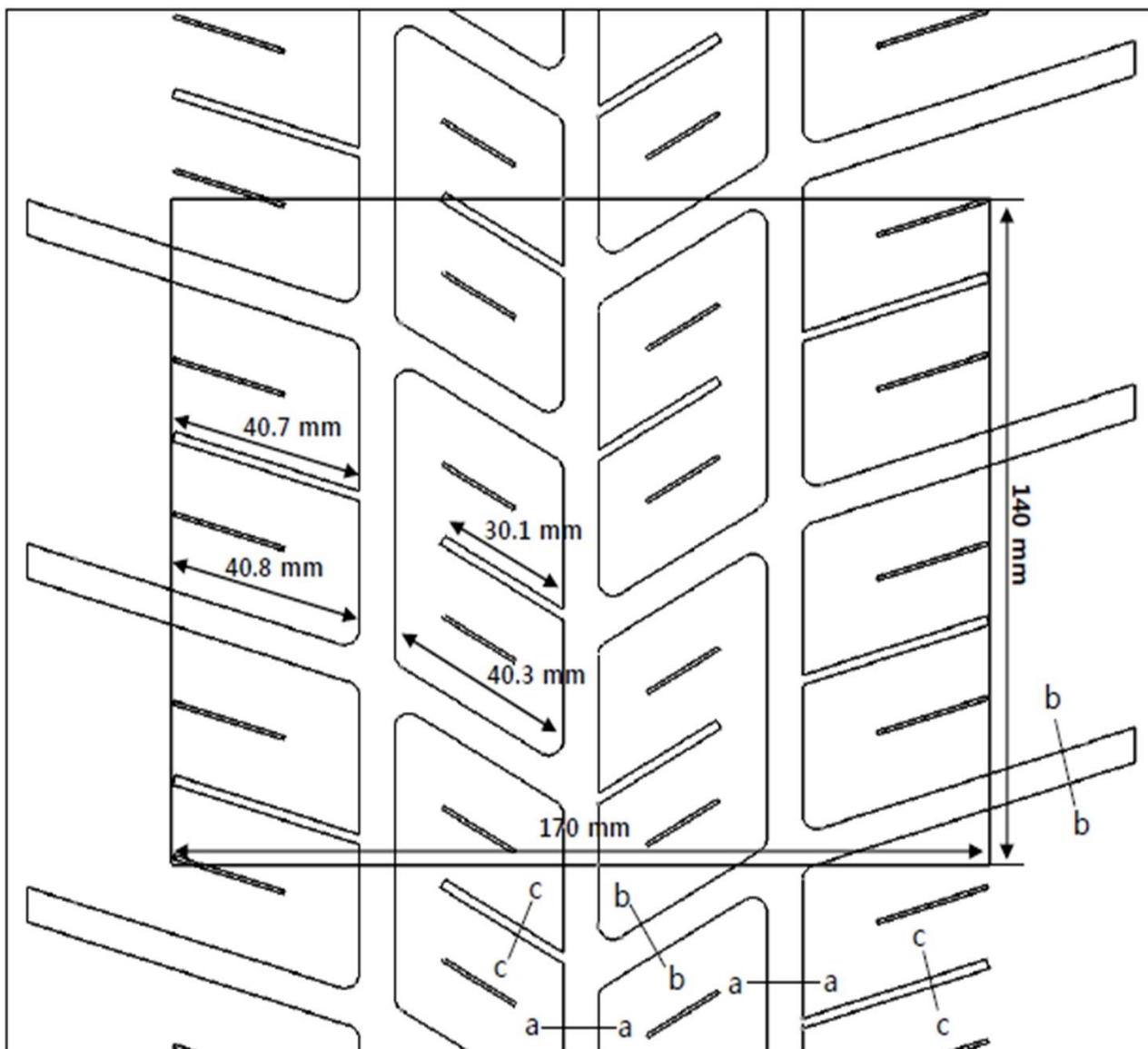
Empty Depth > 1.8mm : 23.30%

GROOVE SURFACE AREA = 554540 mm²

Control Surface = 23800 mm²

18" - 210/650R18

Product: Ventus Z210



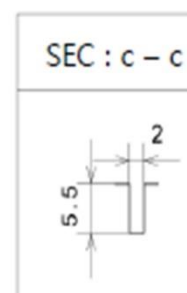
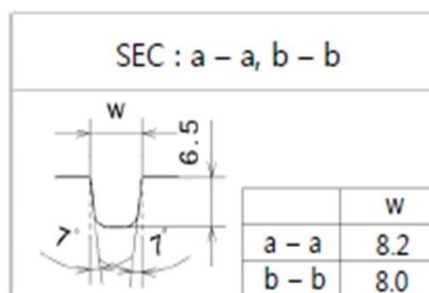
Class 9" (Rim 8")

a - a groove width / depth : 8.2 mm / 6.5 mm

b - b groove width / depth : 8.0 mm / 6.5 mm

Empty Depth > 5.5mm : 27.5%

Control Surface = 23800 mm²



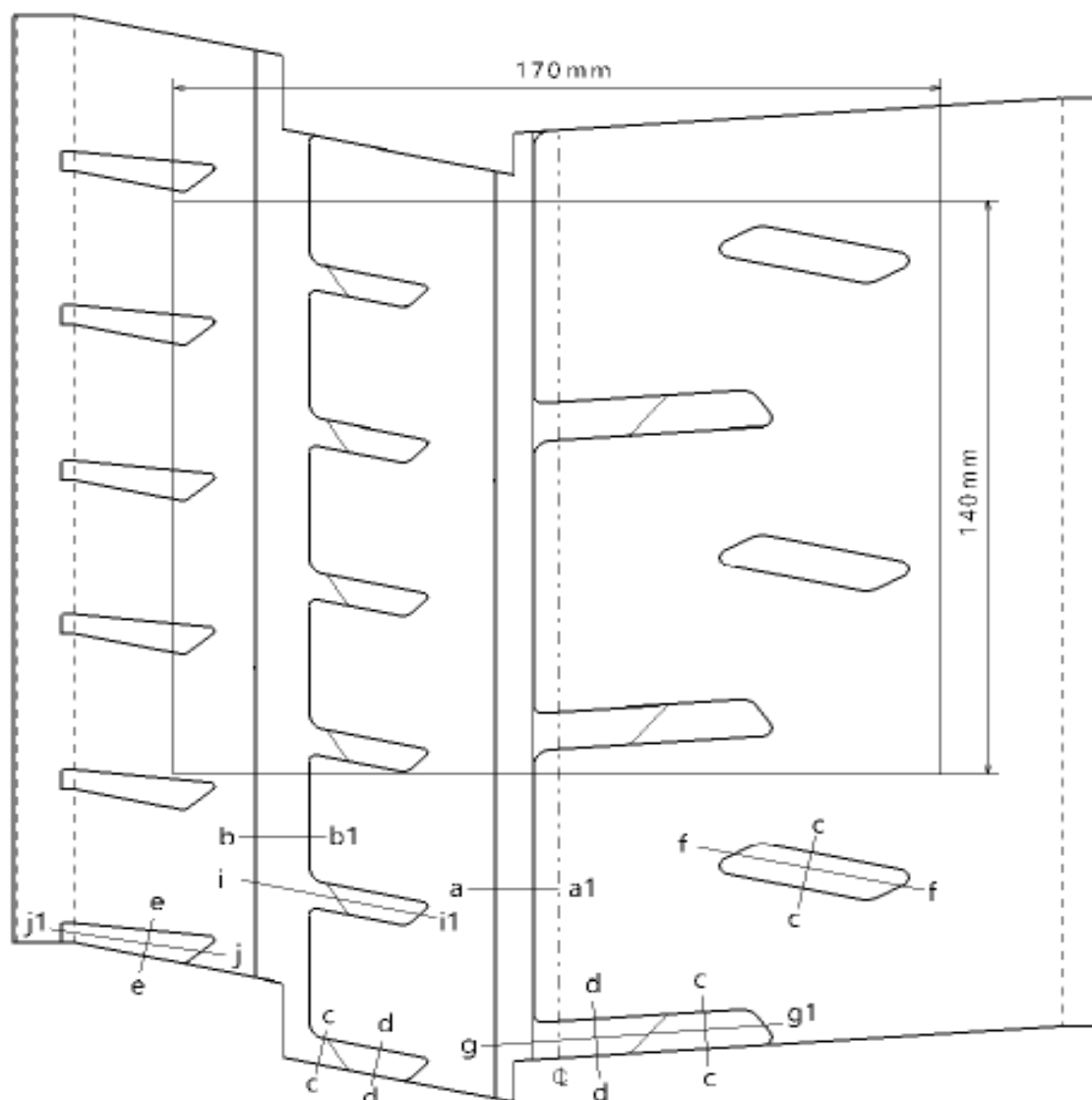
18" - 210/650R18

Product: Ventus Z215



18" - 210/650R18

Product Name : Ventus Z215

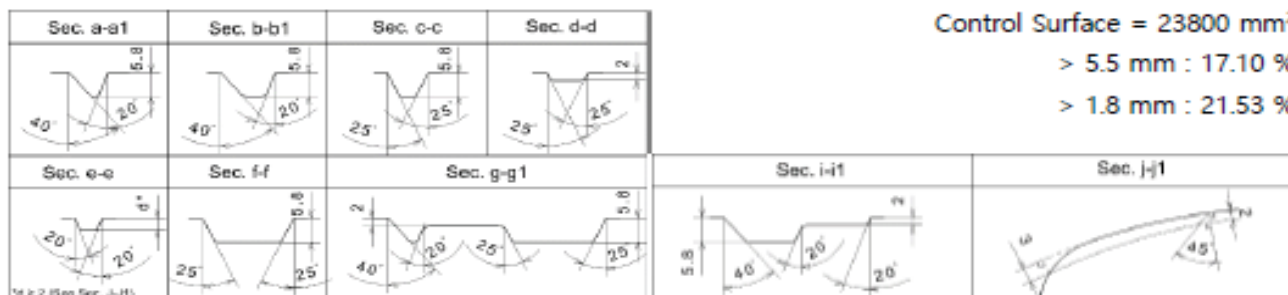


Width of Rim/Tyre Assembly : 8.5" ~ 9"

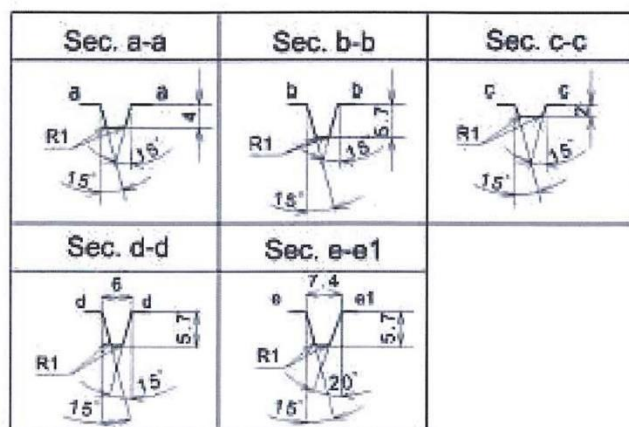
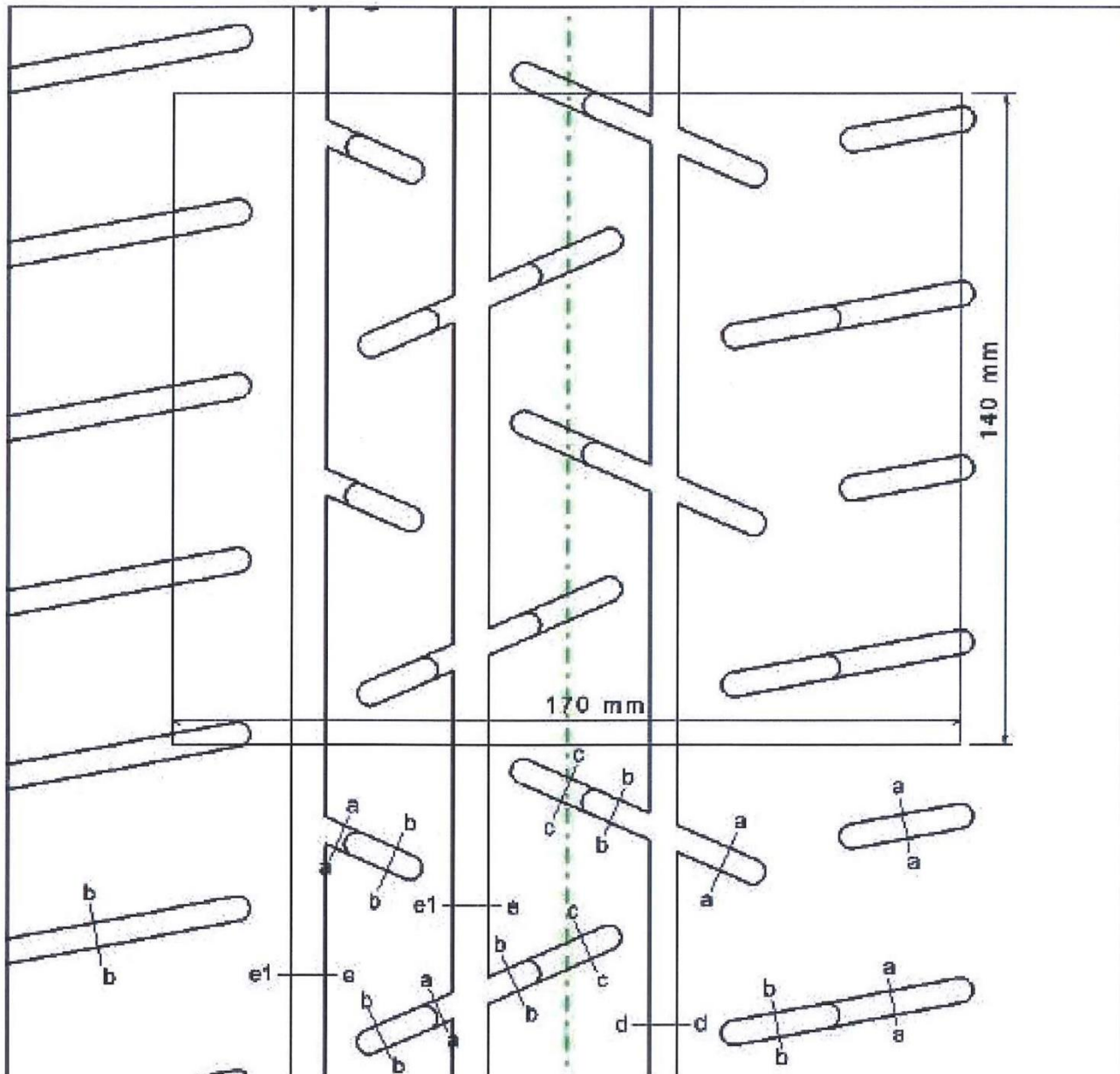
Control Surface = 23800 mm²

> 5.5 mm : 17.10 %

> 1.8 mm : 21.53 %



17" - 210/625 R17



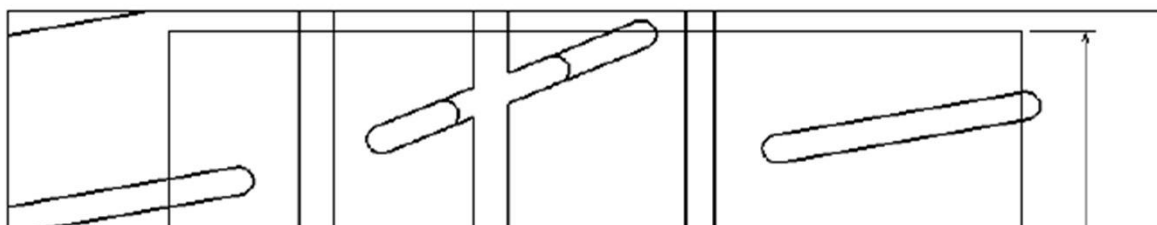
Class 9" (Rim 7.5")

Empty Depth > 5.5mm : 17.05%

Empty Depth > 1.8mm : 25.08%

Control Surface = 23800 mm²

17" - 180/625 R17

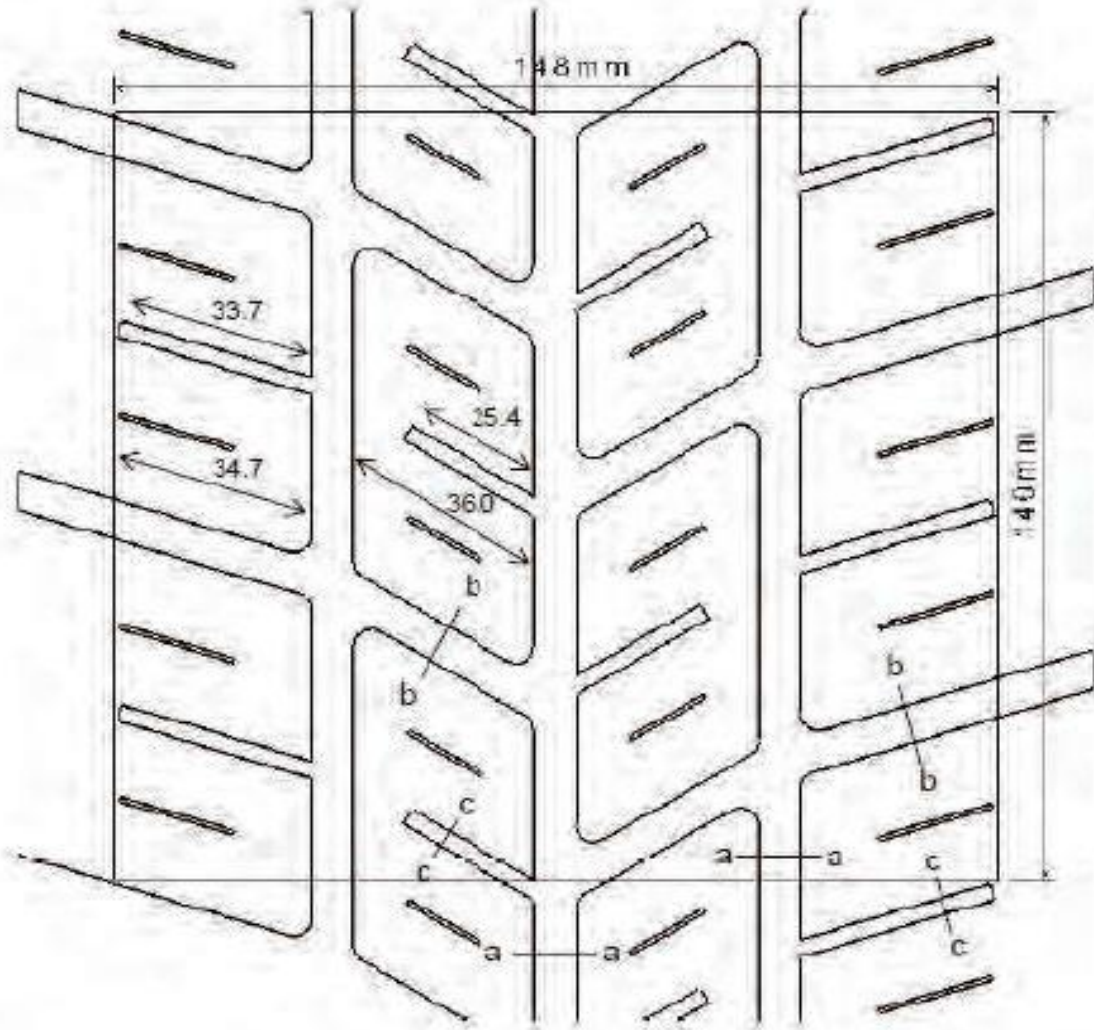


17" - 180/625R17



17" - 180/625R17

Product : Ventus Z210



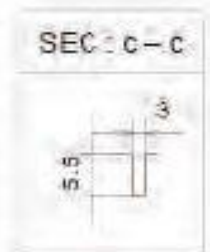
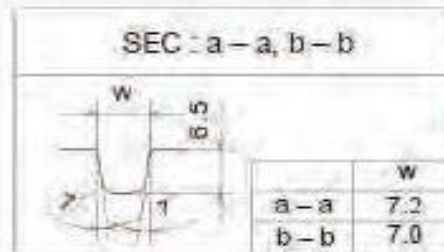
Width of Rim/Tyre Assembly : 7.5" ~ 8"

a - a groove width / depth : 7.2 mm / 6.5 mm

b - b groove width / depth : 7.0 mm / 6.5 mm

Empty Depth > 5.5mm : 27.5%

Control Surface = 20720 mm²

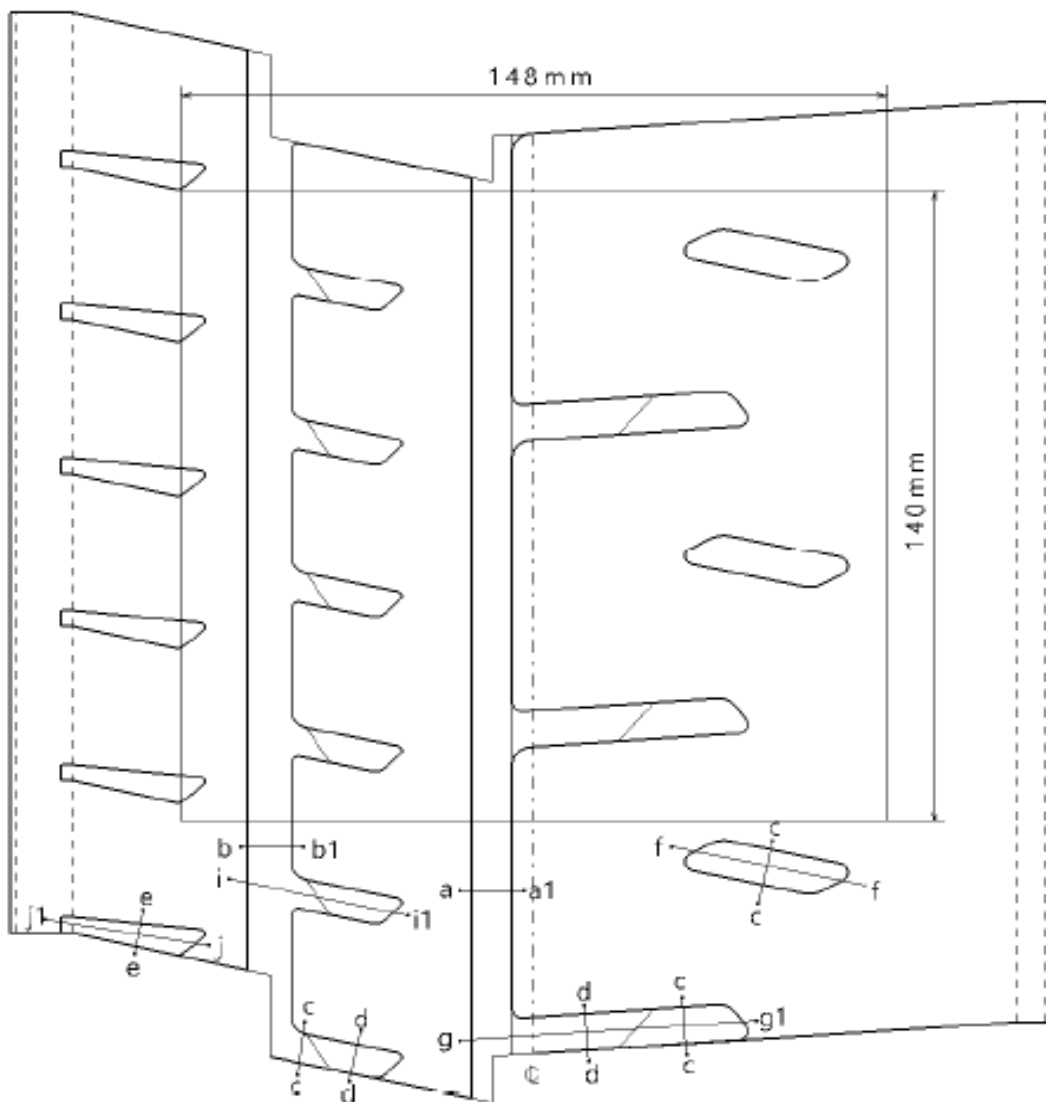


17" - 190/630R17



17" - 190/630R17

Product Name : Ventus Z215

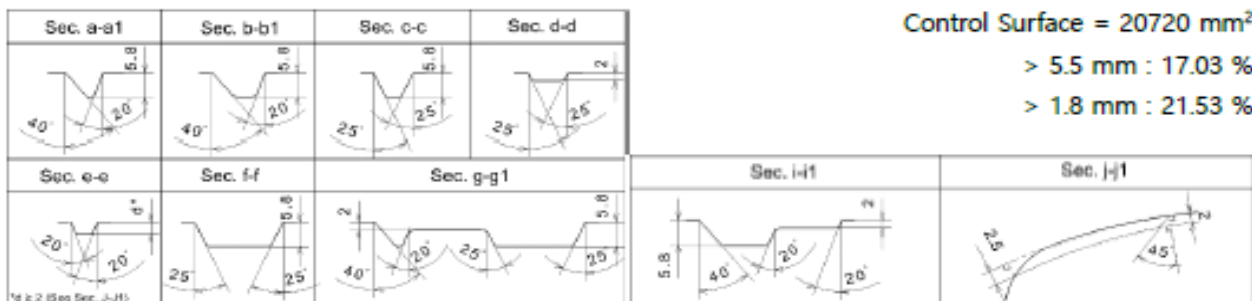


Width of Rim/Tyre Assembly : 7.5" ~ 8"

Control Surface = 20720 mm²

> 5.5 mm : 17.03 %

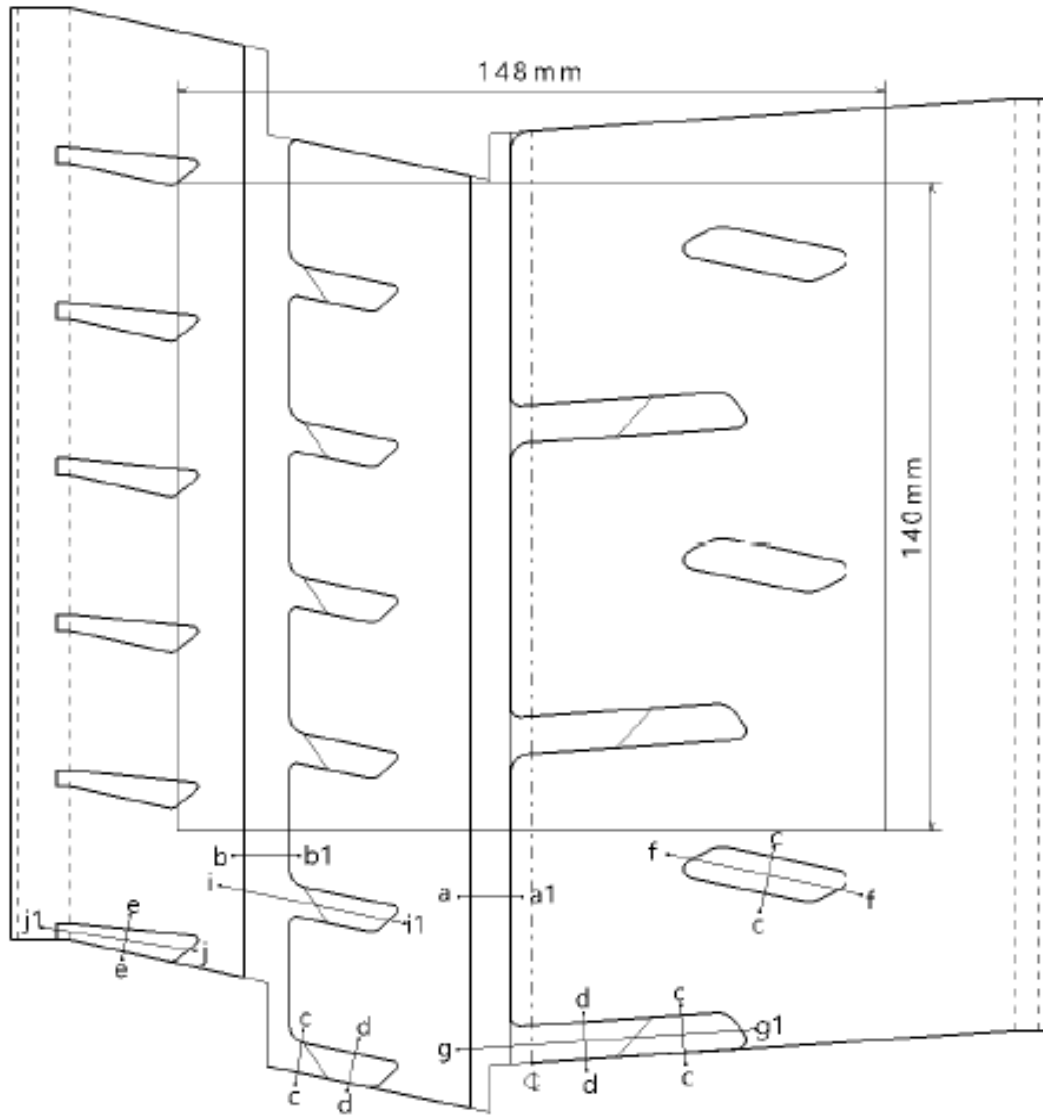
> 1.8 mm : 21.53 %



16" - 190/600R16

16" - 190/600R16

Product Name : Ventus Z215

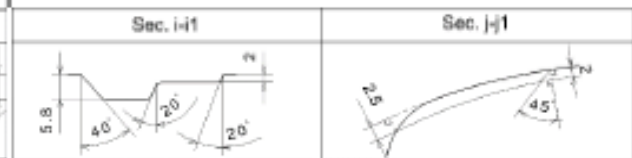
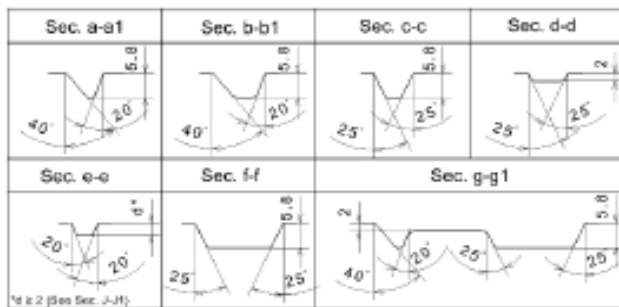


Width of Rim/Tyre Assembly : 7.5" ~ 8"

Control Surface = 20720 mm²

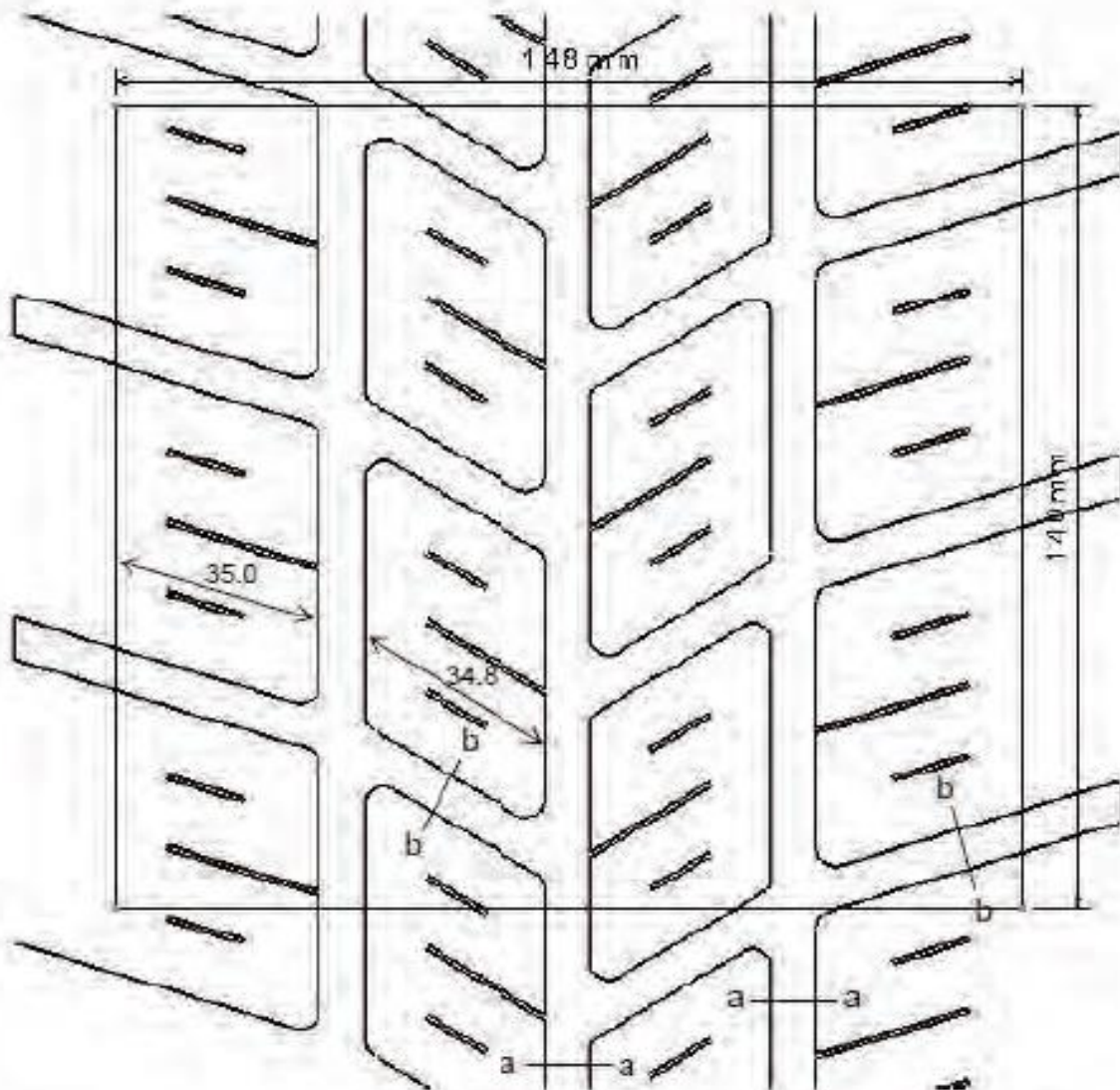
> 5.5 mm : 17.10 %

> 1.8 mm : 21.54 %



16" - 180/600R16

Product : Ventus Z210



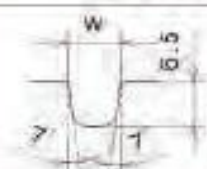
Width of Rim/Tyre Assembly : 7.5" ~ 8"

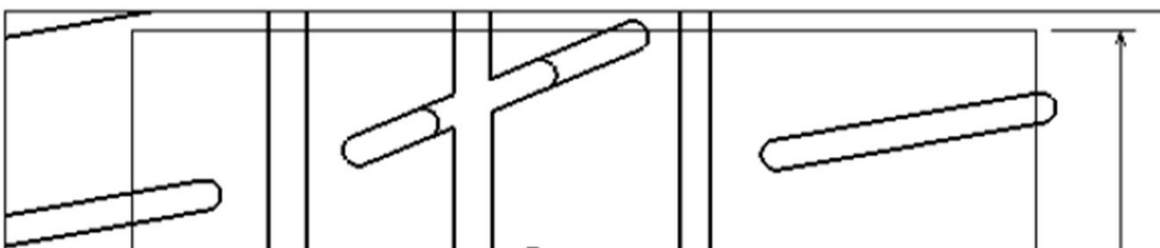
a - a groove width / depth : 7.5 mm / 6.5 mm

b - b groove width / depth : 7.5 mm / 6.5 mm

Empty Depth > 5.5mm : 27.5%

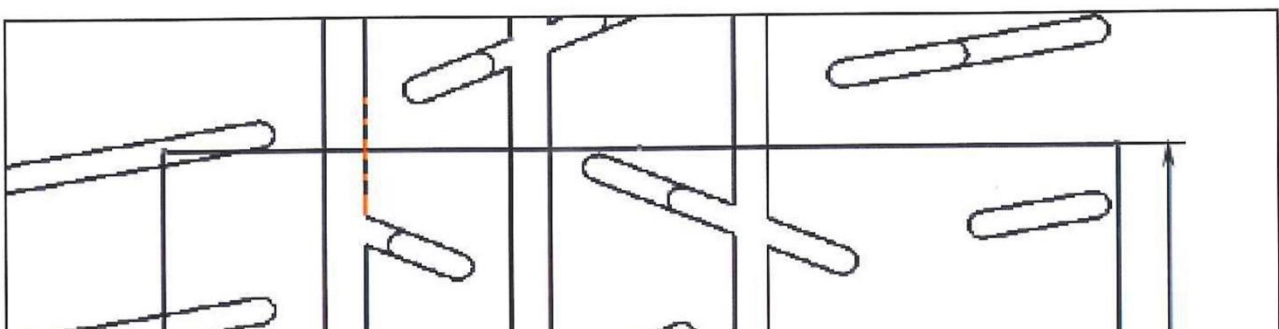
Control Surface = 20720 mm²

SEC = a - a, b - b	
	
a - a	w
b - b	7.5
	7.5





15" - 200/580R15



18" - 210/645R18

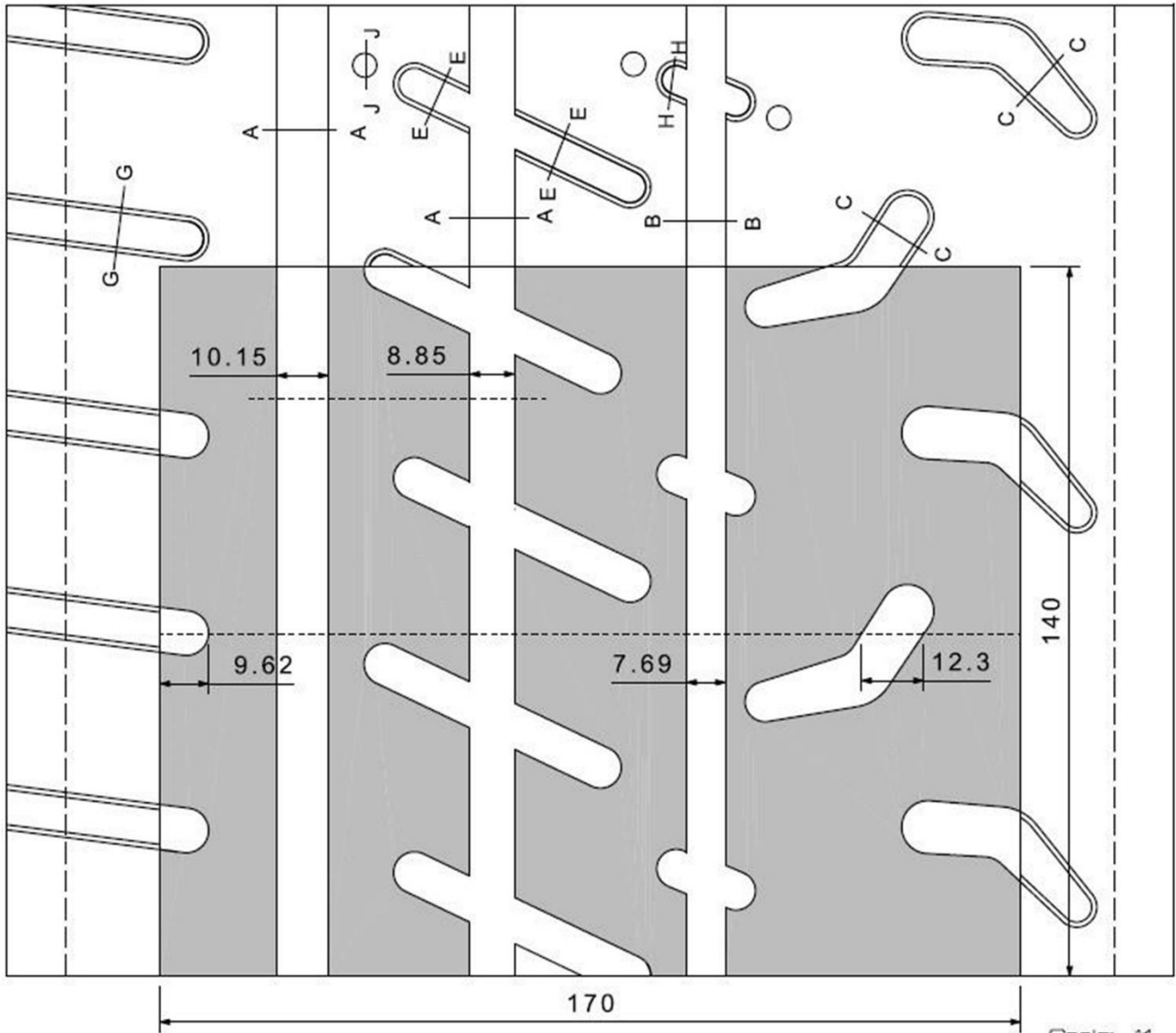
Moulded tyre for FIA homologation

Size : 210/645R18

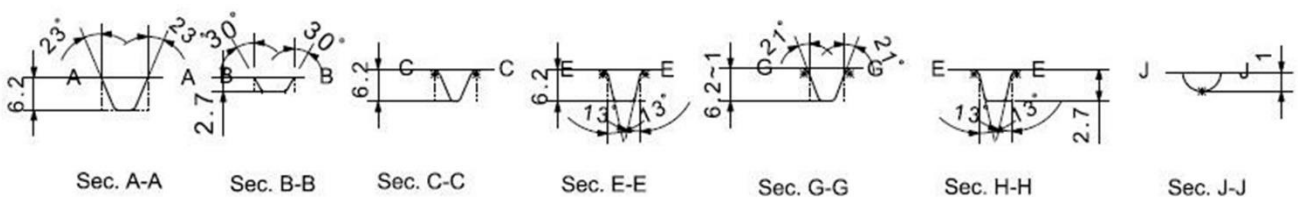
Pattern : TM01

On the basis of a tread pattern width of 170mm and circumference of 140mm

- * The surface taken up by grooves at least 5.5 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 17% of the total surface.
- * The surface taken up by grooves at least 1.8 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 21.5% of the total surface.
- * The sum of the width of the grooves encountered by a radial line must be at least 16mm
- * At least 2 circumferential lines / Minimum total width of circumferential lines at least 12mm



Groove Area by 170 x 140 at least 1.8mm deep : 5815.4mm²
 Void % : 24.4%
 Groove Area by 170 x 140 at least 5.5mm deep : 4580.7mm²
 Void % : 19.2%



18" - 210/645R18

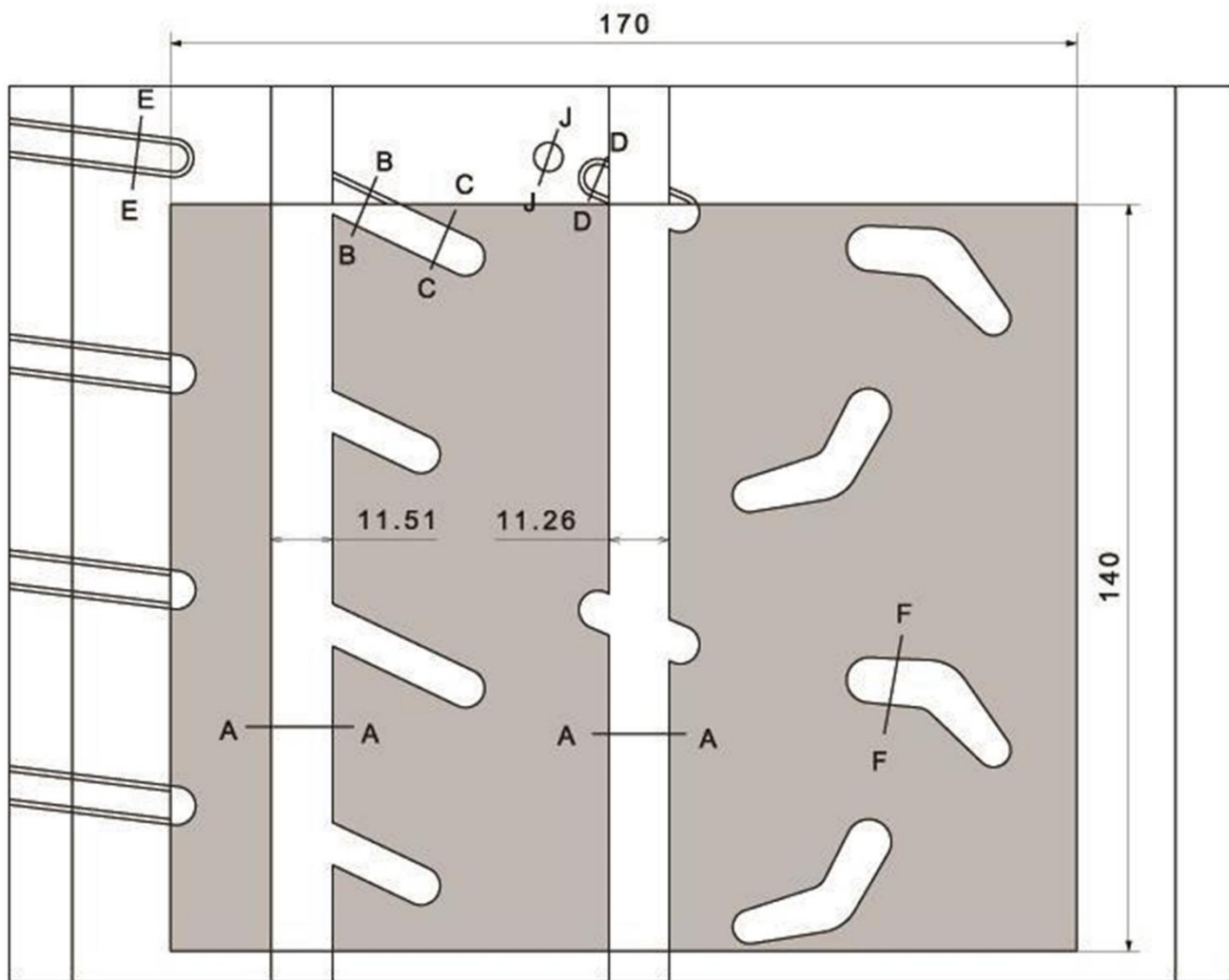
Moulded tyre for FIA homologation

Size : 210/645R18

Pattern : TM02

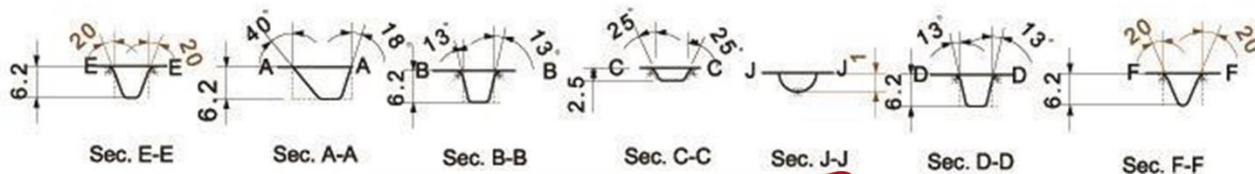
On the basis of a tread pattern width of 170mm and circumference of 140mm

- The surface taken up by grooves at least 5.5 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 17% of the total surface.
- The surface taken up by grooves at least 1.8 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 21.5% of the total surface.
- The sum of the width of the grooves encountered by a radial line must be at least 16mm
- At least 2 circumferential lines / Minimum total width of circumferential lines at least 12mm



Scale: 1:1

Groove Area by 170 x 140 at least 1.8mm deep : 5159mm²
 Void % : 21.7%
 Groove Area by 170 x 140 at least 5.5mm deep : 4446mm²
 Void % : 18.7%



18" - 210/645R18

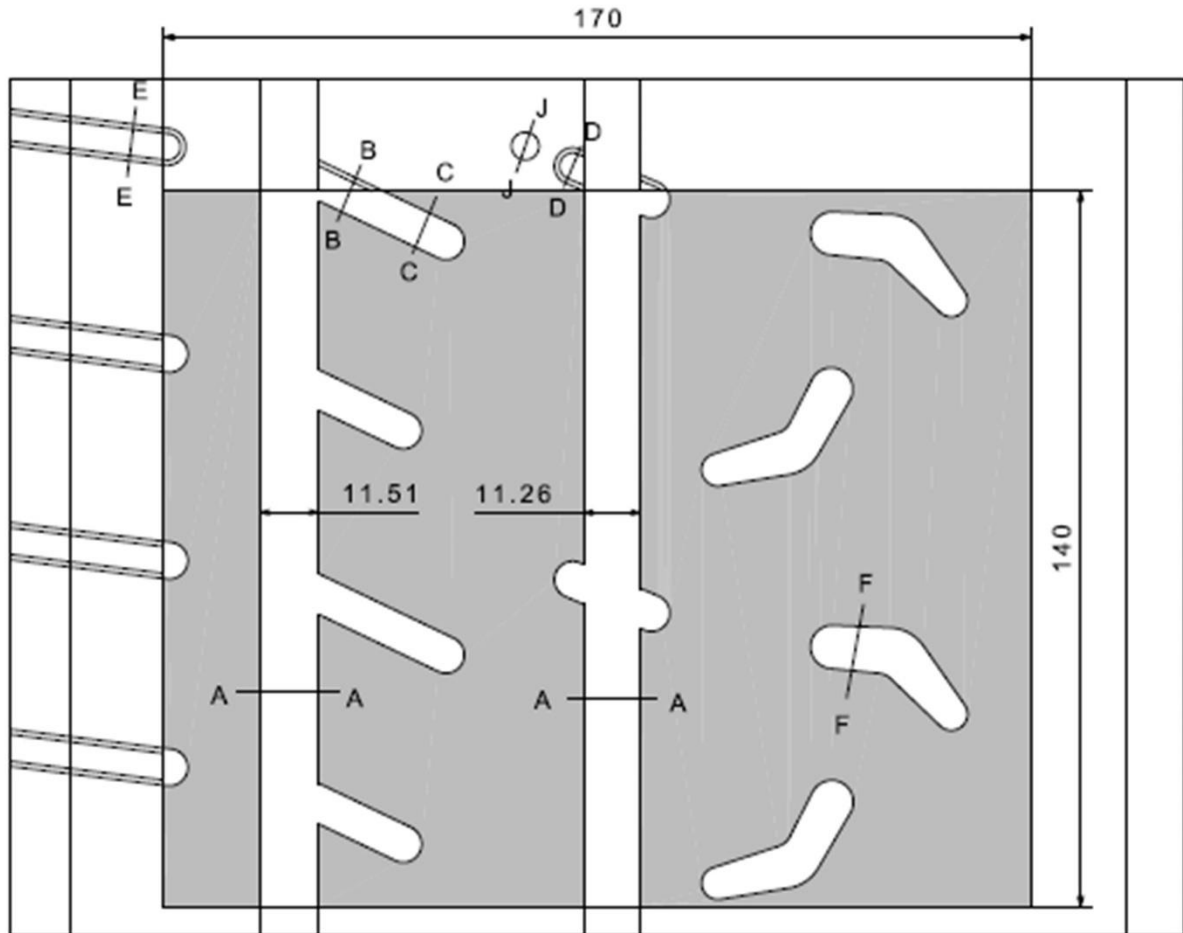
Moulded tyre for FIA homologation

Size : 210/645R18

Pattern : TM02

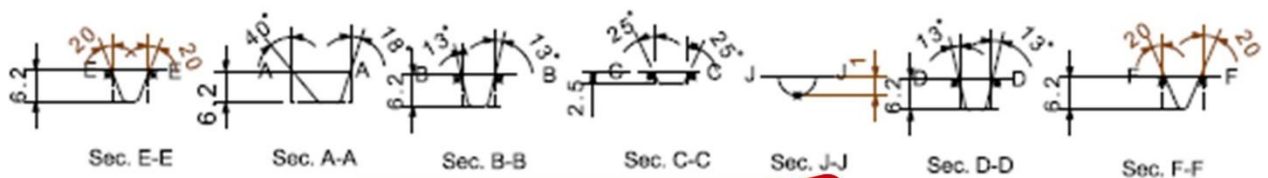
On the basis of a tread pattern width of 170mm and circumference of 140mm

- The surface taken up by grooves at least 5.5 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 17% of the total surface.
- The surface taken up by grooves at least 1.8 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 21.5% of the total surface.
- The sum of the width of the grooves encountered by a radial line must be at least 16mm
- At least 2 circumferential lines / Minimum total width of circumferential lines at least 12mm



Scale 1:1

Groove Area by 170 x 140 at least 1.8mm deep : 5159mm²
 Void % : 21.7%
 Groove Area by 170 x 140 at least 5.5mm deep : 4446mm²
 Void % : 18.7%



KUMHO TYRES

18" - 210/645R18

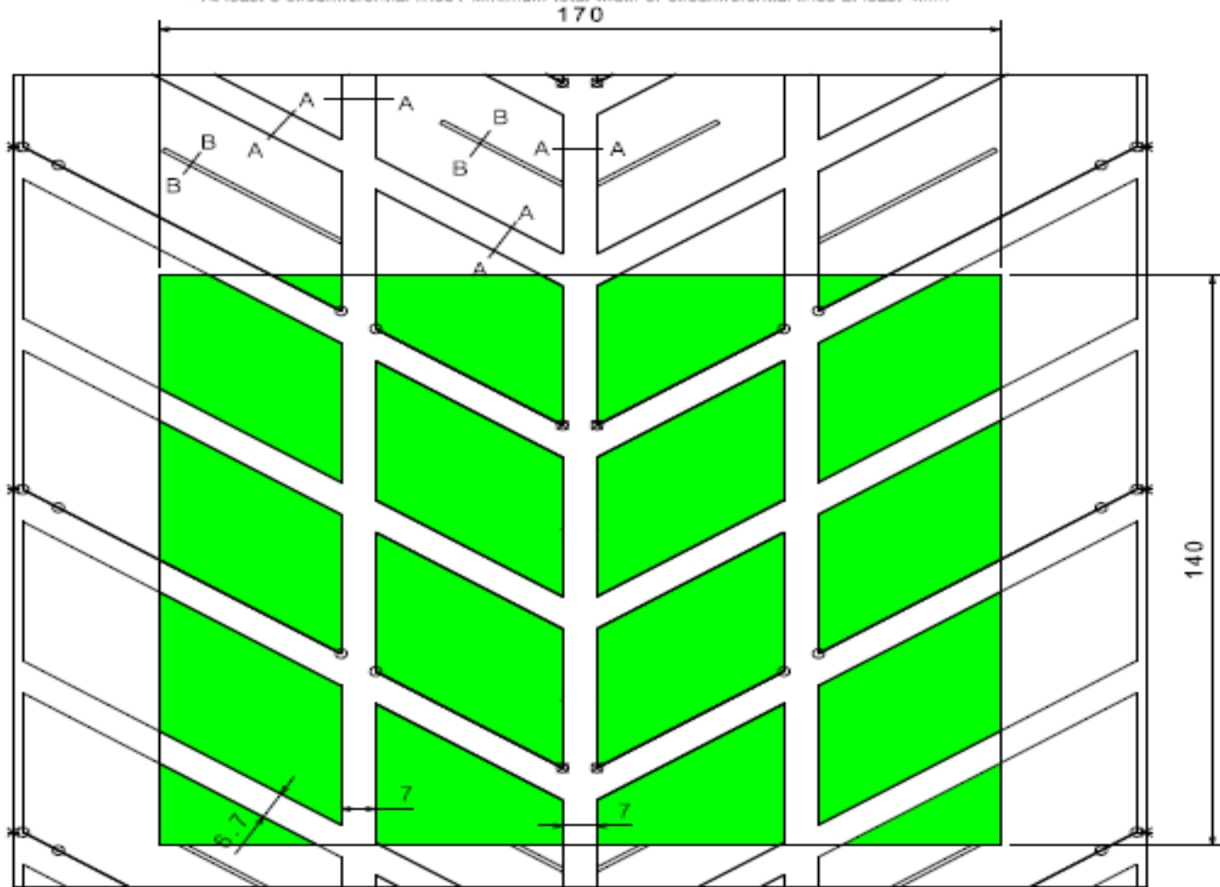
KUMHO TIRE

Moulded tyre for FIA homologation

Size : 210/645R18

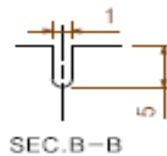
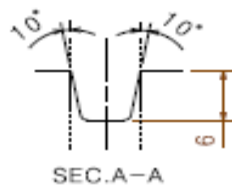
Pattern : TW03

- On the basis of a tread pattern width of 170mm and circumference of 140mm
- The surface taken up by grooves at least 5.5mm deep must occupy at least 27.5% of the total surface.
 - The sum of the width of the grooves encountered by a radial line must be at least 15mm
 - At least 3 circumferential lines / Minimum total width of circumferential lines at least 4mm



Scale: 1:1

Groove Area by 170 x 140 at least 5.5mm deep : 6789.4mm²
Void % : 28.5%




KUMHO TYRES
17" - 190/630R17

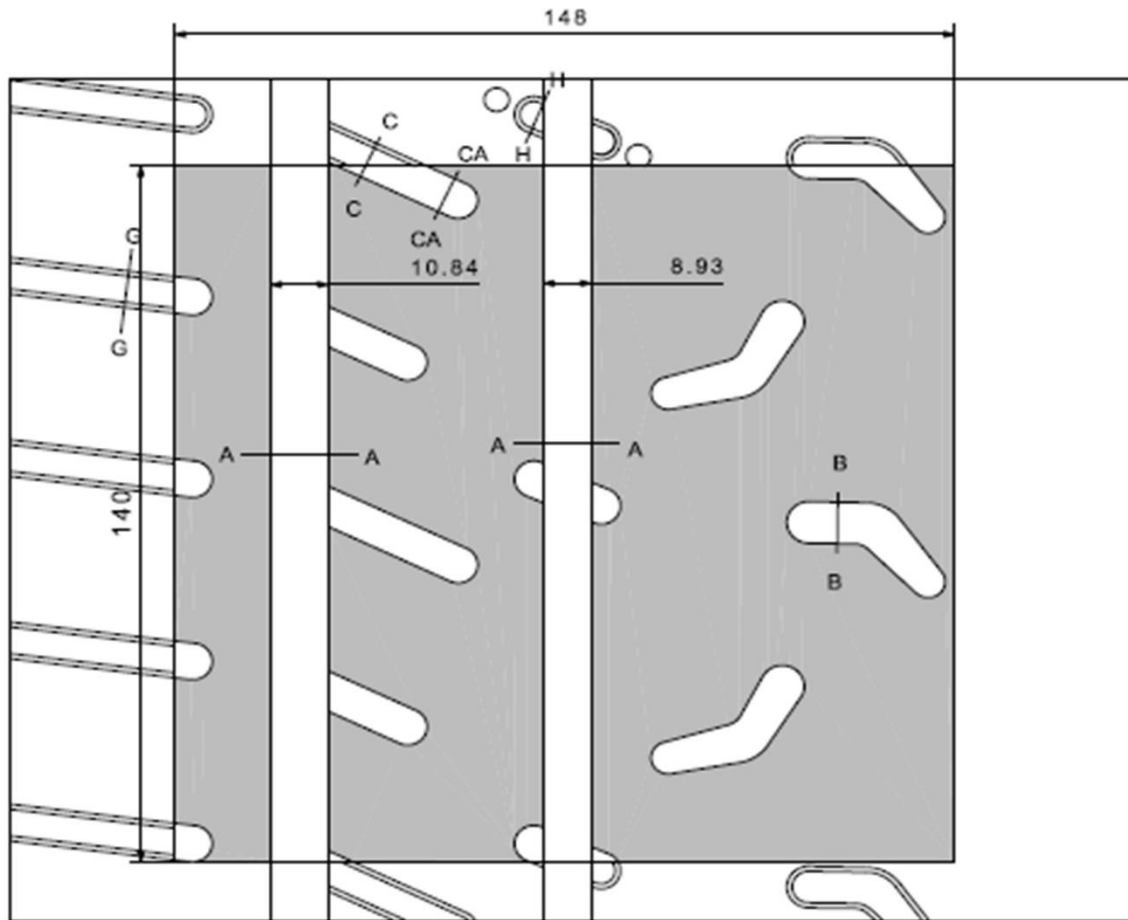
Moulded tyre for FIA homologation

Size : 190/630 R17

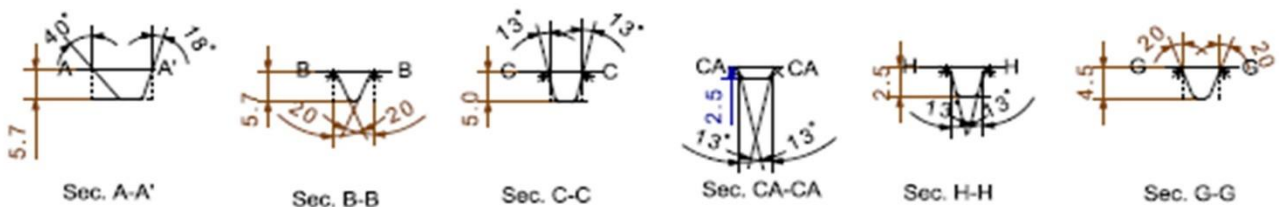
Pattern : TM02

On the basis of a tread pattern width of 148mm and circumference of 140mm

- The surface taken up by grooves at least 5.5 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 17% of the total surface.
- The surface taken up by grooves at least 1.8 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 21.5% of the total surface.
- The sum of the width of the grooves encountered by a radial line must be at least 16mm
- At least 2 circumferential lines / Minimum total width of circumferential lines at least 12mm



Groove Area by 148 x 140 at least 1.8mm deep : 4579.1mm²
 Void % : 22.1%
 Groove Area by 148 x 140 at least 5.5mm deep : 3688.1mm²
 Void % : 17.8%



KUMHO TYRES
16" - 190/600R16

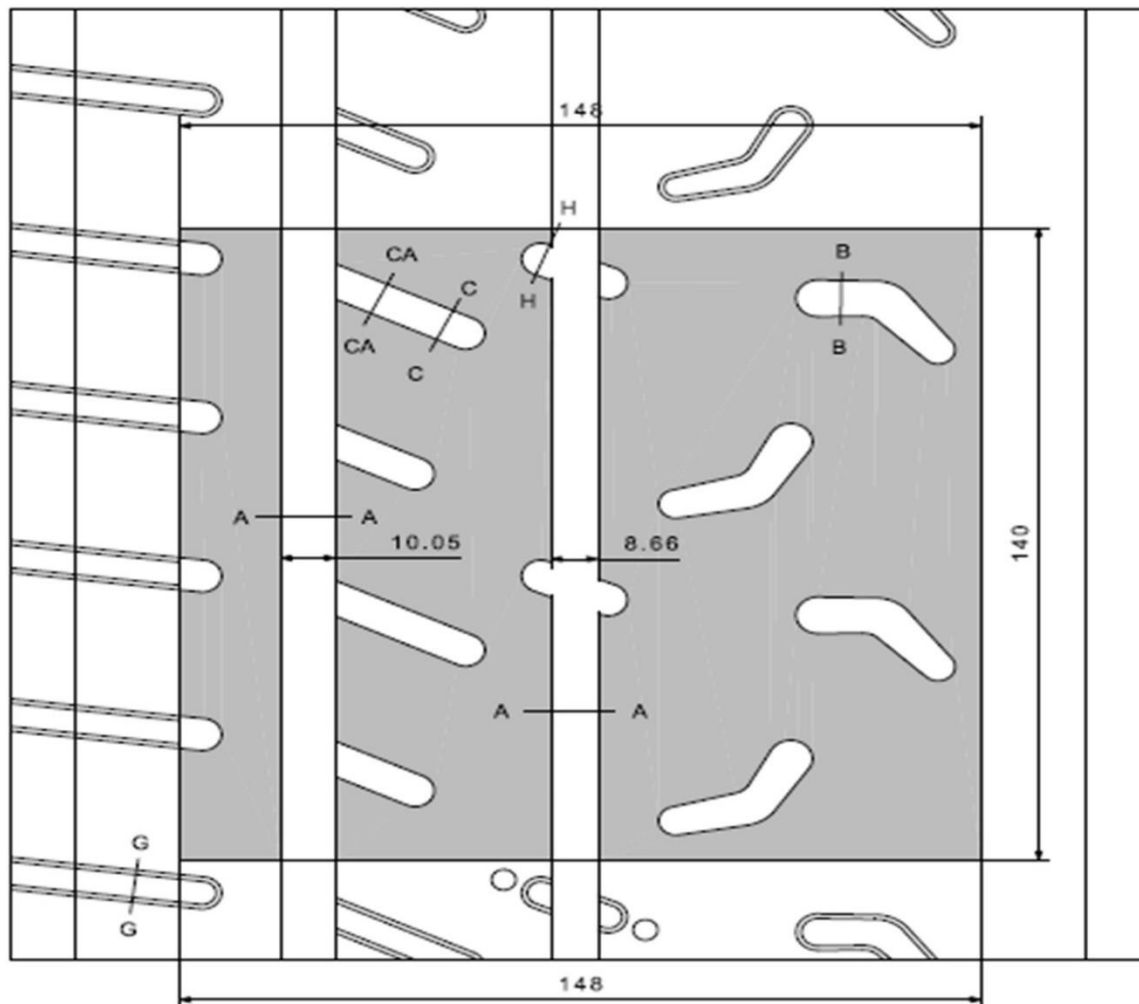
Moulded tyre for FIA homologation

Size : 190/600 R16

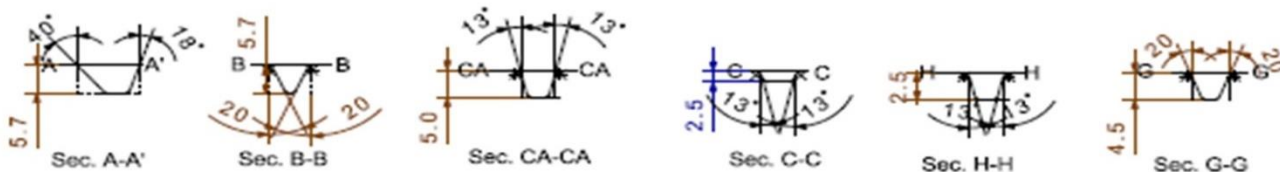
Pattern : TM02

On the basis of a tread pattern width of 148mm and circumference of 140mm

- The surface taken up by grooves at least 5.5 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 17% of the total surface.
- The surface taken up by grooves at least 1.8 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 21.5% of the total surface.
- The sum of the width of the grooves encountered by a radial line must be at least 16mm
- At least 2 circumferential lines / Minimum total width of circumferential lines at least 12mm



Groove Area by 148 x 140 at least 1.8mm deep : 4579.1mm²
 Void % : 22.1%
 Groove Area by 148 x 140 at least 5.5mm deep : 3584.5mm²
 Void % : 17.3%



KUMHO TYRES

15" - 180/580R15

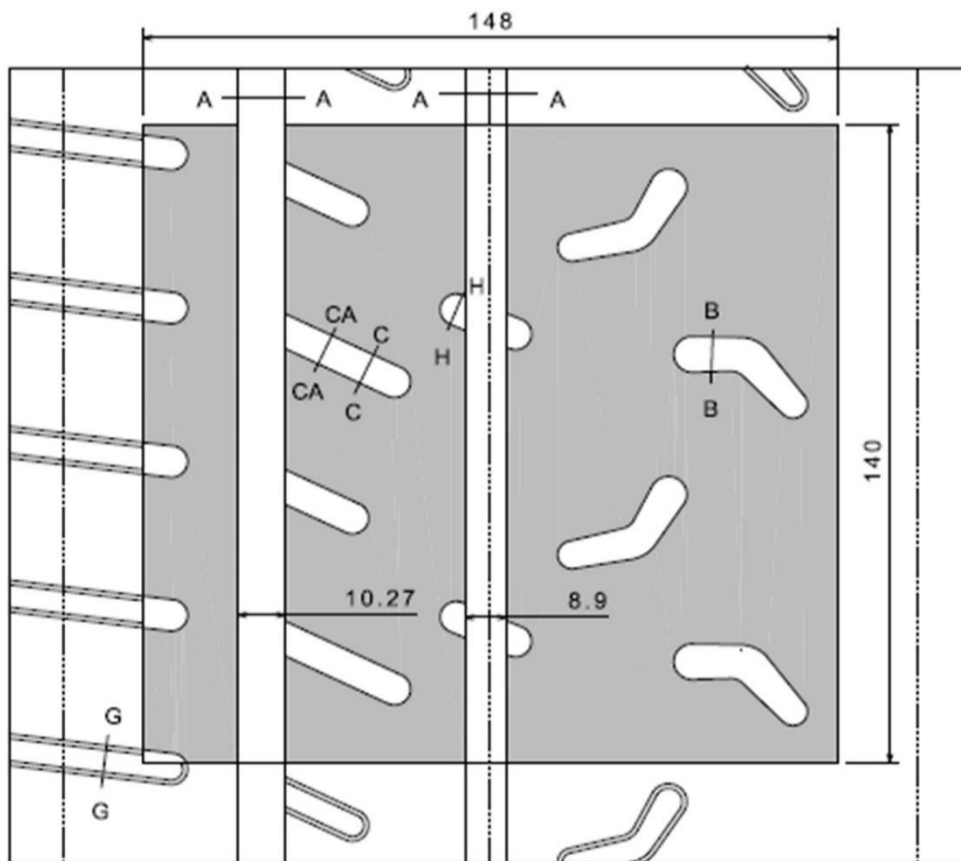
Moulded tyre for FIA homologation

Size : 180/580 R15

Pattern : TM02

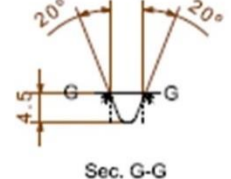
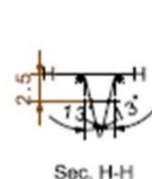
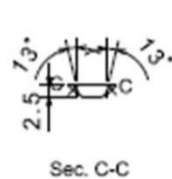
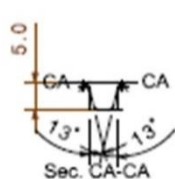
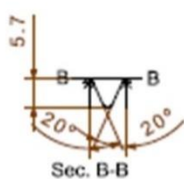
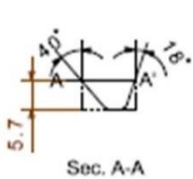
On the basis of a tread pattern width of 148mm and circumference of 140mm

- The surface taken up by grooves at least 5.5 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 17% of the total surface.
- The surface taken up by grooves at least 1.8 mm deep, with a maximum angle of 60° between the block in section and 2mm wide, must occupy at least 21.5% of the total surface.
- The sum of the width of the grooves encountered by a radial line must be at least 16mm



Scale 1:1

Groove Area by 148 x 140 at least 1.8mm deep : 4599.8mm²
 Void % : 22.2%
 Groove Area by 148 x 140 at least 5.5mm deep : 3563.8mm²
 Void % : 17.2%



Hoosier

RACING TIRE

18" - 225/40R18

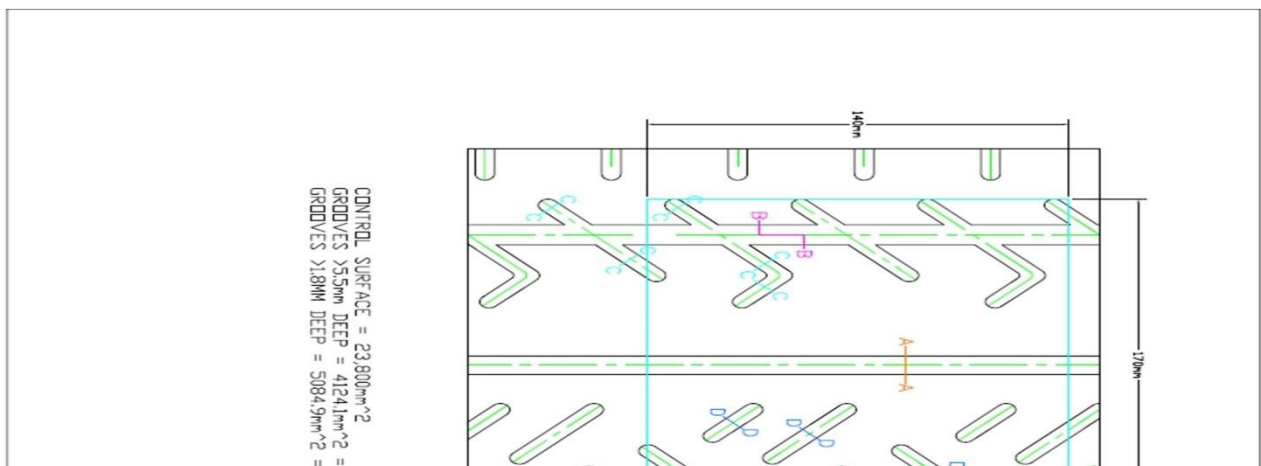
CONTROL SURF
 GROOVES 25.5"



Hoosier

RACING TIRE

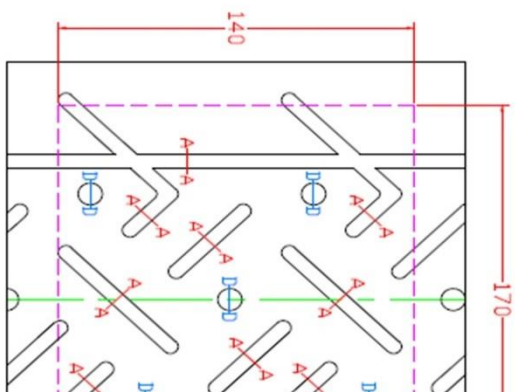
18" - 225/40R18



Hoosier

RACING TIRE

18" - 200/650R18

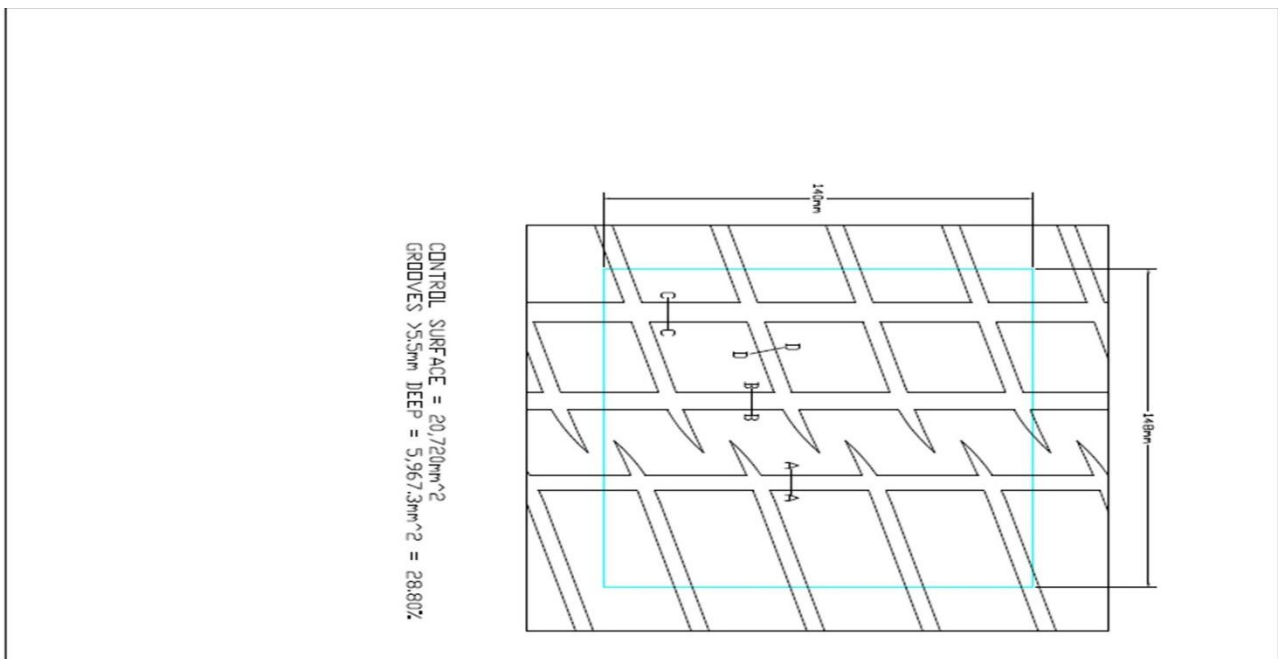


CONTROL SURFACE = 232
GROOVES > 5.5mm = 4,797.71
GROOVES > 1.8mm = 5,152.09

Hoosier

RACING TIRE

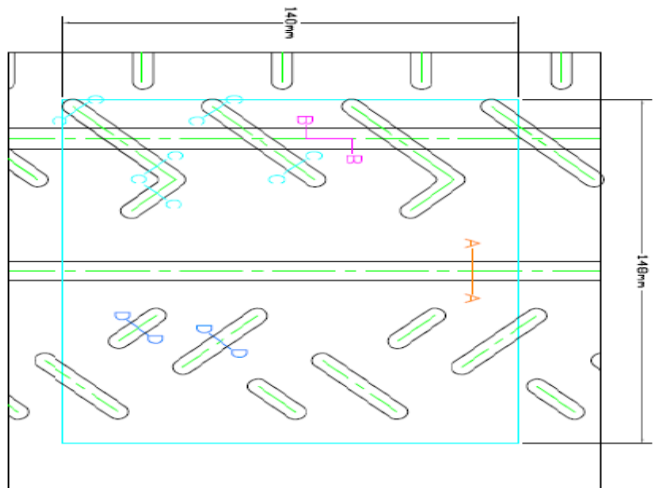
17" - 195/50R17



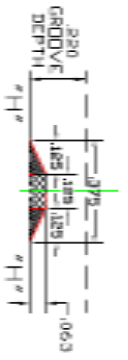
Hoosier

RACING TIRE

17" - 195/50R17

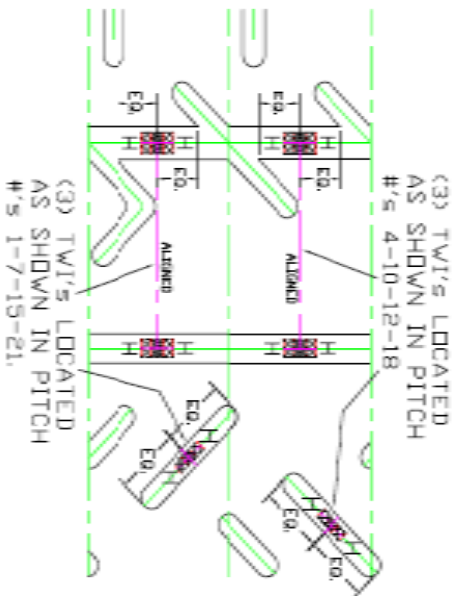


CONTROL SURFACE = 20,720mm²
 GROOVES >5.5mm DEEP = 3617.7mm² = 17.46%
 GROOVES >1.8mm DEEP = 4638.2mm² = 22.39%



SEC H-H
DOT STYLE
TREAD WEAR
INDICATOR
(X SCALE)

(B) TWI'S PER CIRCUMFL GROOVE AND TREAD ELEMENTS AS SHOWN. (24) TOTAL FOR THE MOLD.



THIS IS A CAD DRAWING. MANUAL CHANGES ARE NOT PERMITTED.

Hoosier RACING TIRE CORP.
LAKEVILLE, INDIANA

195/50R17 TARMAC RALLY 5/7N 4927

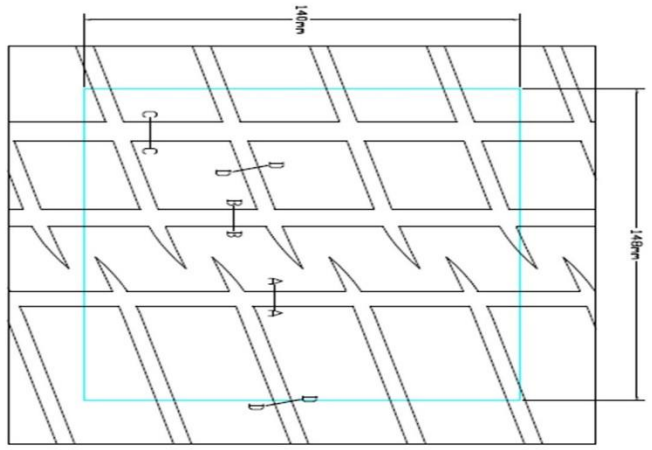
DESIGN BY	KED	APPROVED BY	XXX	CHECKED BY	MSB
DATE	04-09-2018	DATE	09-08-2008	DATE	04-09-2018
SCALE	1:1	SCALE	1:1	SCALE	1:1
FILE	195_50R17_TARMAC_507.dwg	FILE	195_50R17_TARMAC_507.dwg	FILE	195_50R17_TARMAC_507.dwg

3RD ANGLE PROJECTION

Hoosier

RACING TIRE

16" - 195/50R16



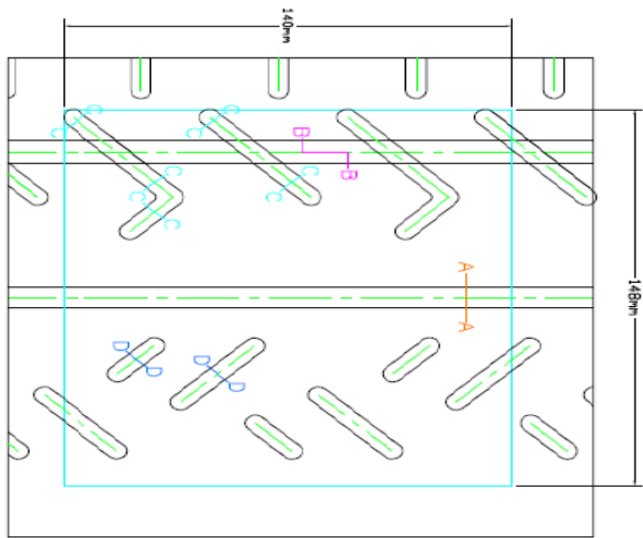
CONTROL SURFACE = 20,720mm²
GROOVES >5.5mm DEEP = 59718mm² = 28.82%



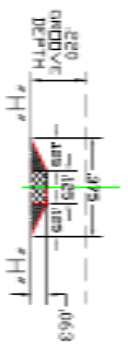
Hoosier

RACING TIRE

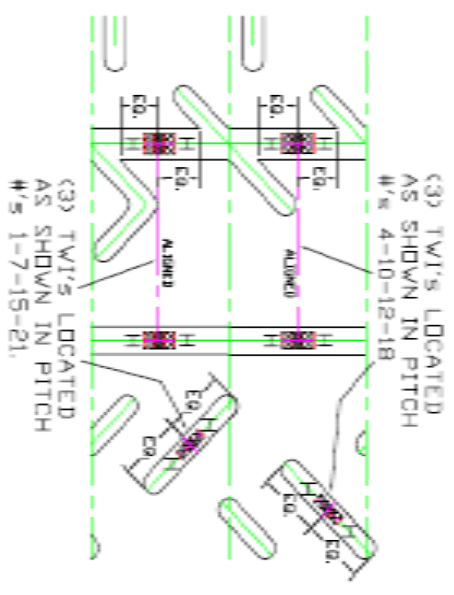
16" - 195/50R16



CONTROL SURFACE = $20,720\text{mm}^2$
GROOVES >5.5mm DEEP = $3617,7\text{mm}^2$ = 17.46%
GROOVES >1.8mm DEEP = $4638,2\text{mm}^2$ = 22.39%



(8) TWI'S PER CIRCUMFL GROOVE AND TREAD ELEMENTS AS SHOWN. (24) TOTAL FOR THE MOLD.



THIS IS A CAD DRAWING. MINOR CHANGES ARE NOT PERMITTED.

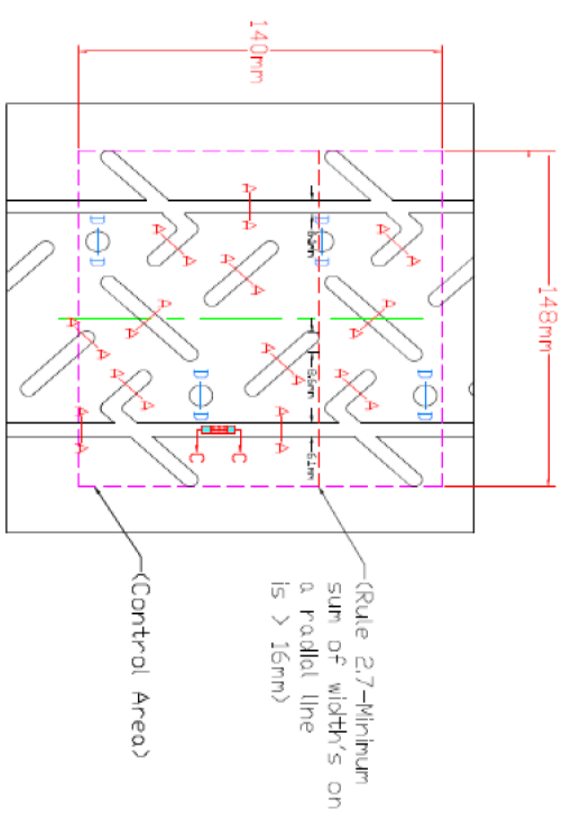
Hoosier RACING TIRE CORP.
LAKEVILLE, INDIANA

DESIGNED BY	KJB	APPROVED BY	KJB	CHECKED BY	KJB
DATE	04-08-2008	DATE	03-20-2008	DATE	04-09-2008
SCALE	AS SHOWN	SCALE	AS SHOWN	SCALE	AS SHOWN
1997/2008 TARGAC RALLY S/N 4296					
NO SCALE INDICATED					
SHEET 1					

Hoosier

RACING TIRE

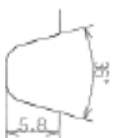
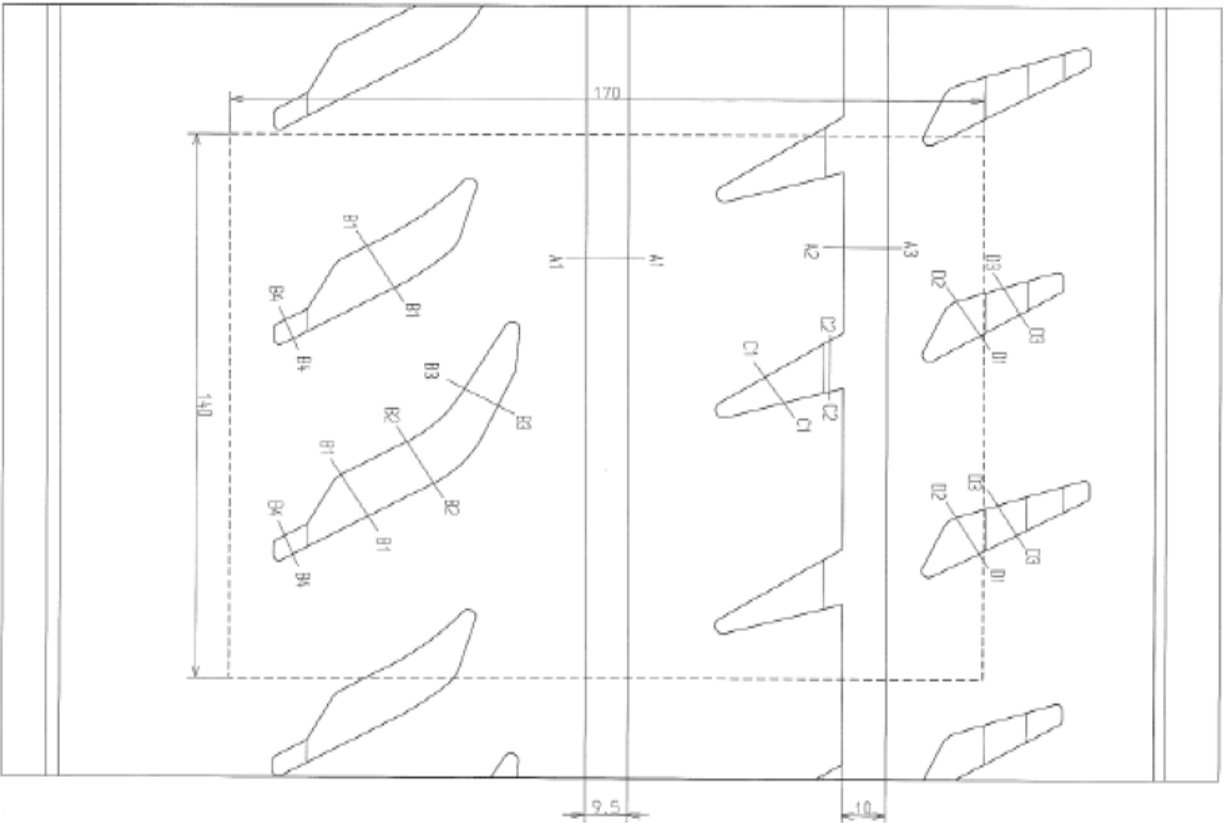
15" - 185/580R15



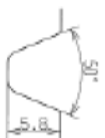
CONTROL SURFACE = 20,720mm²
 GROOVES > 5.5mm² = 4,277.4mm² = 20.64%
 GROOVES > 1.8mm² = 4,531.9mm² = 21.87%

TOYO TIRES

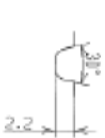
18" - 205/640R18



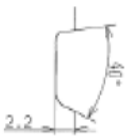
SEC. A1-A1



SEC. B1-B1



SEC. B4-B4



SEC. D1-D2

In the control grooves
5.5mm grooves-18,22
Total grooves 22,33

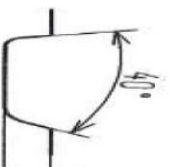
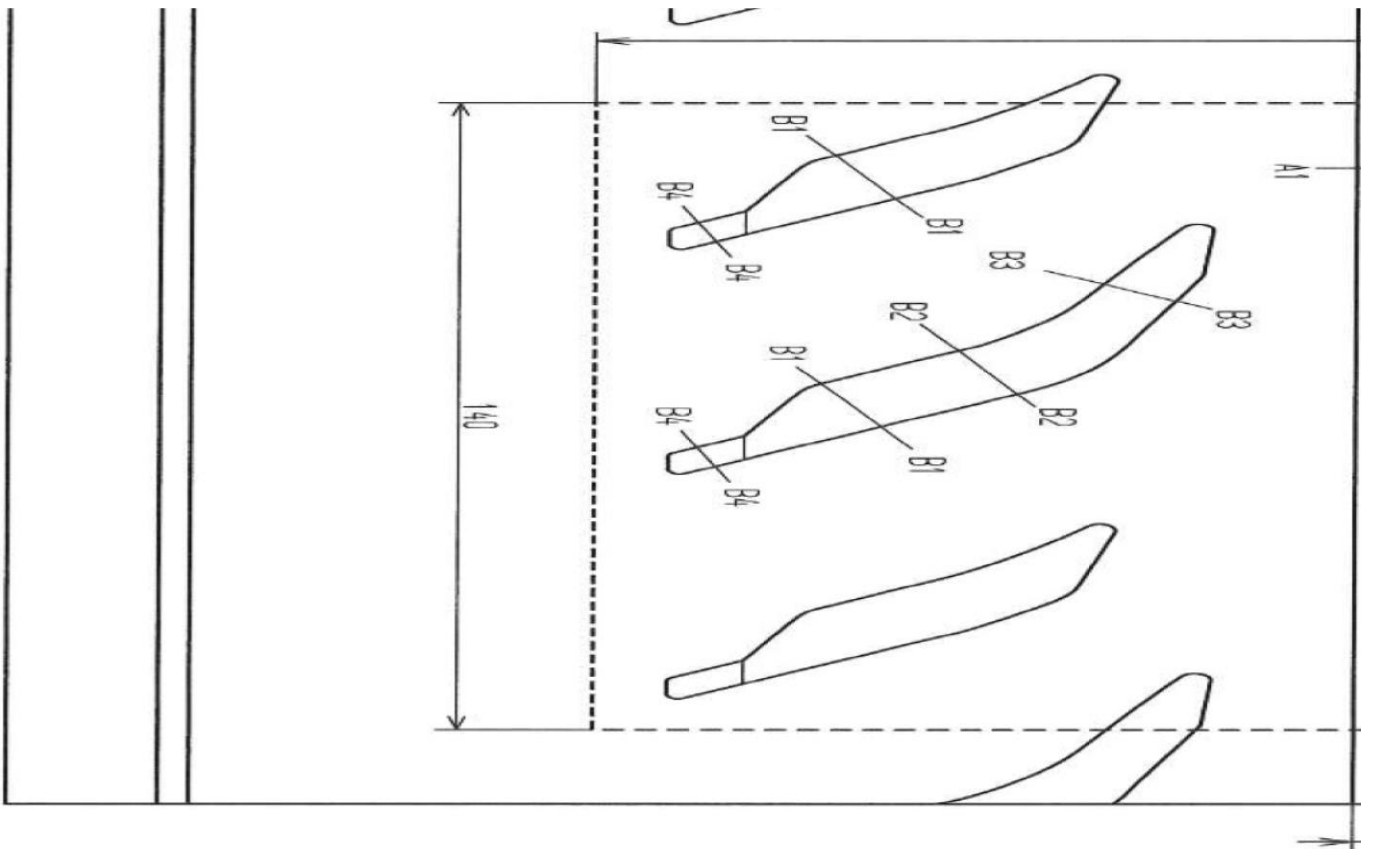
Control

PRODUC
TOYO P

SIZE 2

TOYO TIRES

16" - 185/60R16



SEC. D1-D2

In the control area
5.5mm grooves-19.2%
Total grooves 23.1%

-----Control

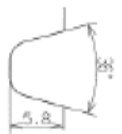
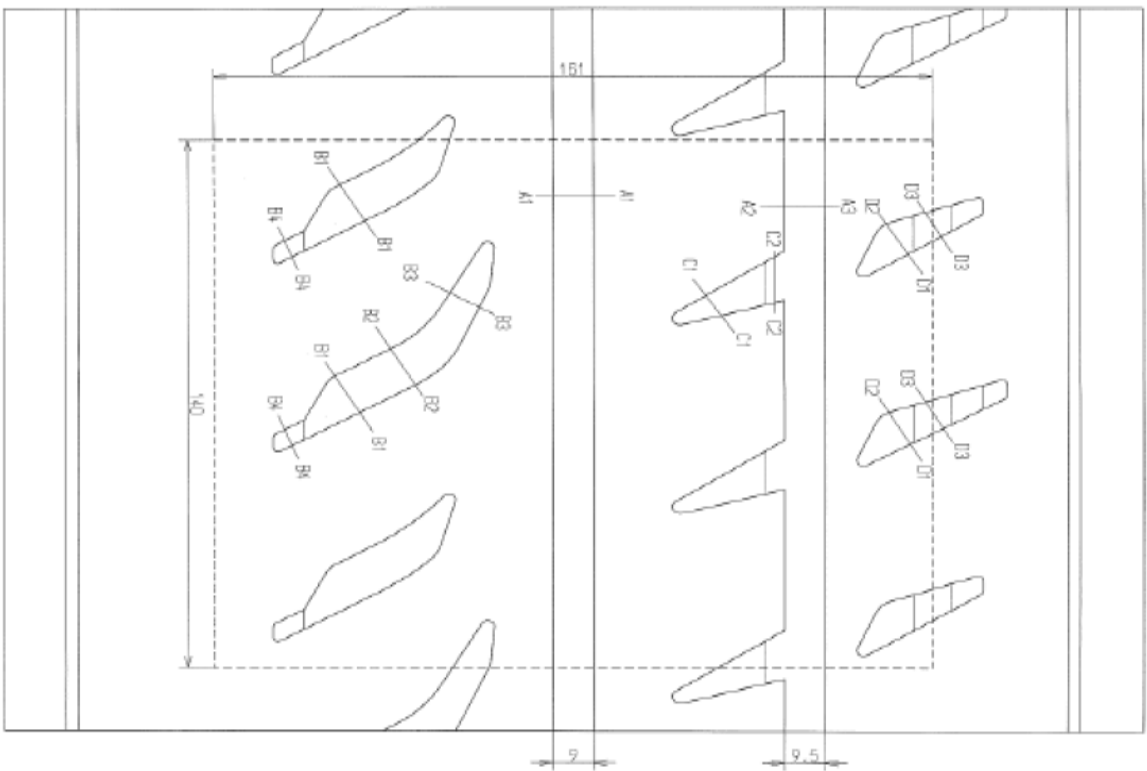
PRODUCT
TOYO P

SIZE 16

TOYO TIRES

TOYO TIRES

15" - 185/580R15



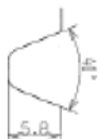
SEC. A1-A1



SEC. A2-A3



SEC. B1-B1



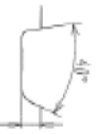
SEC. B2-B2



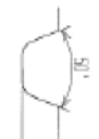
SEC. B4-B4



SEC. C1-C1



SEC. D1-D2



SEC. D3-D3

In the control grooves
5.5mm grooves-18.22
Total grooves 22.32

Control area(61 x 140)

PRODUCT NAME
TOYO PROXES 8

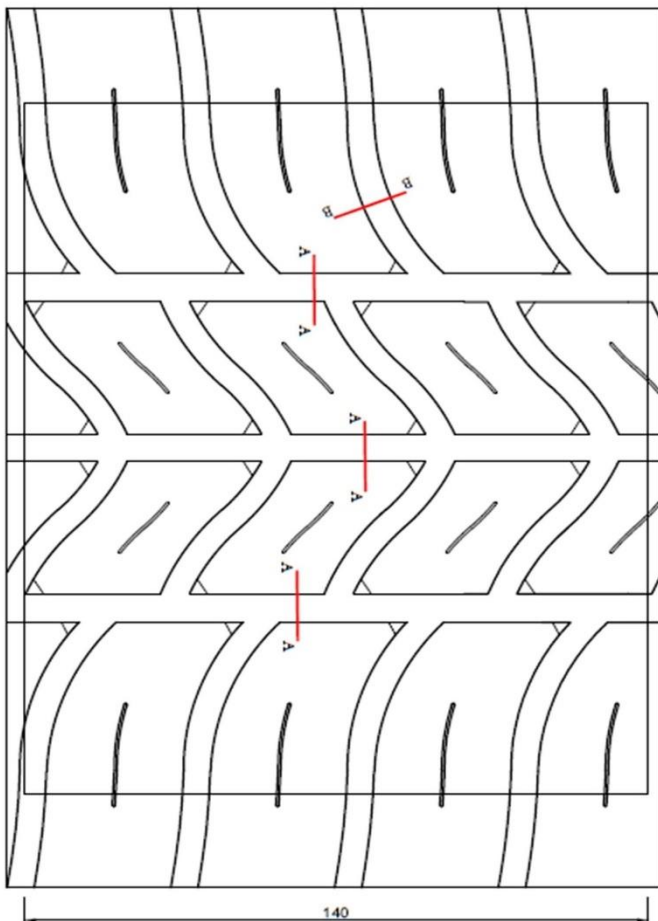
SIZE 185/580R



MRF TYRES 18" - 235/40R18



MRF 235/40R18 ZWR1 TL



In the control area 170x140 mm (indicated in the dotted line)

Grooved area within Min. 5.5 mm deep grooves > 27.5%

The total width of the circumferential line is >12 mm

The sum of the width of the grooves encountered by a radial line is >16 mm

CLASS 9"
RIM 8.0"



IF IN DOUBT ASK...

All dimensions are in mm, unless otherwise specified

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S.No.	DATE	DESCRIPTIONS	DRAWN	VPRD / PDM

CHENNAI		INDIA	
DRAWN	APPROVED	SCALE	
G.Krishnakumar	T.N.Sunder		
PSE	VPRD / PDM	NTS	
10.02.2020	17.02.2020		

F.I.A COMPLIANCE FOR 235/40R18 ZWR1 TL

CORPORATE TECHNICAL MOLD DESIGN	DRG No.	RR-235/40R18_0720	REVISION No.	00
SAP DOCUMENT TYPE	SAP DOCUMENT No.	VER		



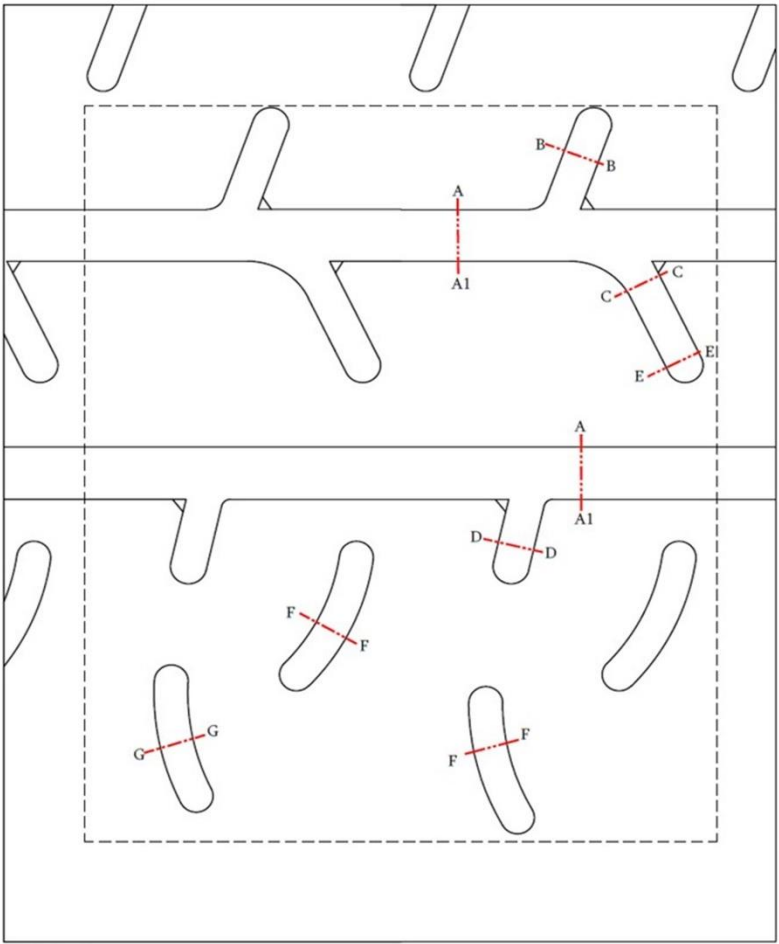
MRF TYRES

18" - 235/40R18



MRF 235/40R18 ZTA1 TL

170



In the control area 170x140 mm (indicated in the dotted line)

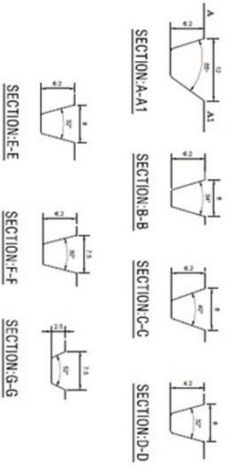
Grooved area within Min. 1.8 deep grooves > 21.5%

Grooved area within Min. 5.5 deep grooves > 17.0%

The total width of the circumferential line is >12 mm

The sum of the width of the grooves encountered by a radial line is >16 mm

CLASS 9"
RIM 8.0"



All dimensions are in mm. Unless otherwise specified

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6

5

4

3

2

1

NOT TO SCALE

F.I.A COMPLIANCE FOR 235/40R18 ZTA1 TL

CORPORATE TECHNICAL MOLD DESIGN DRG No. RR-235/40R18_0518

SAP DOCUMENT TYPE:	SAP DOCUMENT No.	VER

S.No.	DATE	DESCRIPTIONS	REVISIONS	DRAWN	EVPRD.

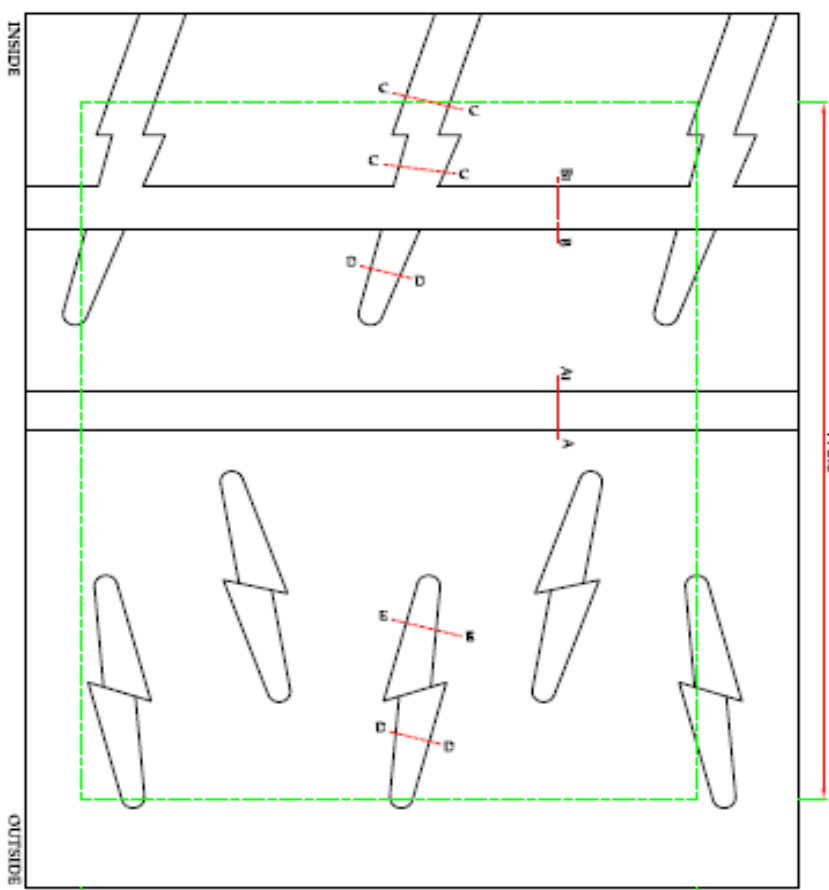
CHENNAI	INDIA
DRAWN	APPROVED
G Krishnahar	T N Sundar
DE	EVPRD / PDM
DATE	29.01.18

MRF TYRES



18" - 235/40R18

MRF 235 / 40 R18 ZTA PLUS TL

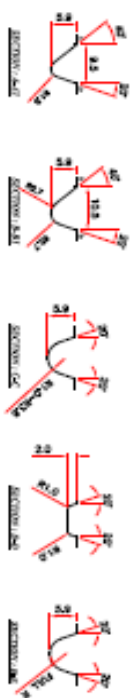


In the control area 170 x 140 mm (Indicated in the Dotted Line)

Grooved area within Min. 1.8 deep grooves > 21.5%
 Grooved area within Min. 5.5 deep grooves > 17.0%
 The total width of the circumferential line is >12 mm
 The sum of the width of the grooves encountered
 by radial line is >16 mm

CLASS 9"
RIM 8.0"

IF IN DOUBT ASK...
DO NOT SCALE THE DRAWING
All dimensions are in mm, unless otherwise specified



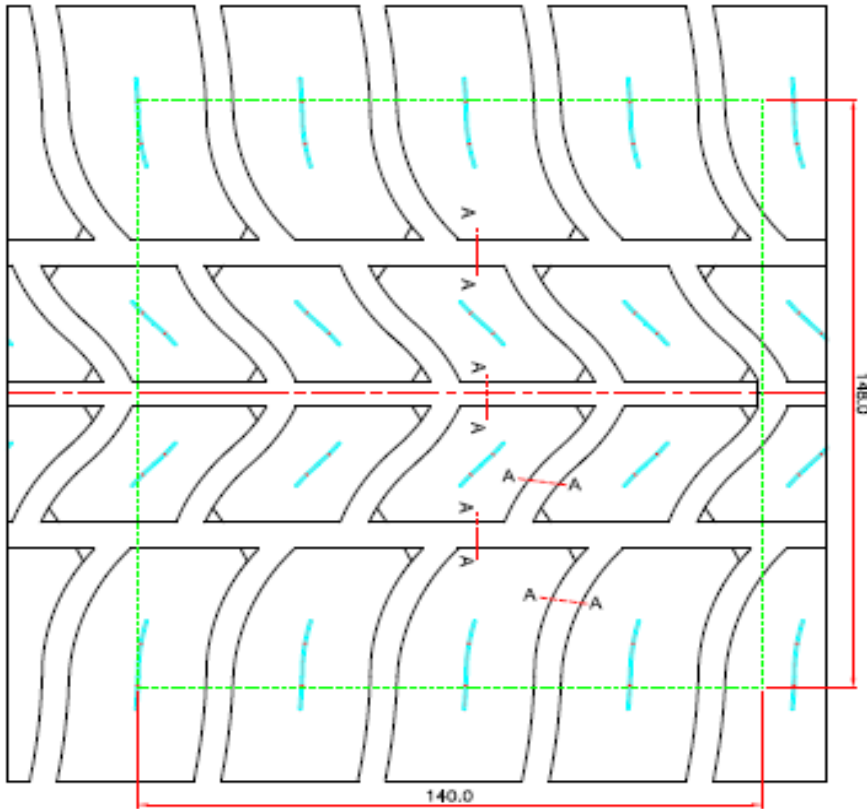
S.N.		DATE	DESCRIPTIONS	DRAWN	HEAD	PROJ / FOM
REVISIONS						
CHEMICAL				INDIA		
DRAWN		CHECKED/SIGNED	APPROVED		SCALE	
SIGNATURE	DATE	DATE	DATE	DATE	DATE	
DEPERSONAL	06	HEADQUARTERS DESIGN	ENRQ / RSM	MIS		
DATE	24/12/2017					
F.I.A COMPLIANCE FOR 235/40R18 ZTA PLUS TL						
CORPORATE TECHNICAL MOLD DESIGN		DRG. NO.	FA-0004		REVISION/NO.	
SAP DOCUMENT TYPE:		SAP DOCUMENT NO.:	158		00	



17" - 205/45R17



205 / 45 R17 ZWR1 TL



SECTION A-A

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F.I.A COMPLIANCE FOR 205 / 45 R17 ZWR1 TL

NET TO SCALE

In the control area 148 x 140 mm (Indicated In the Dotted Line)

Grooved area within Min. 5.5 deep grooves > 27.5%

The total width of the circumferential line is >12 mm

The sum of the width of the grooves encountered by radial line is >16 mm

CLASS 8"
RIM 7.0"

S. NO.	DATE	DESCRIPTIONS	BY	CHKD	APPROVED

CHENNAI **ZWR1** INDIA

DESIGNED BY: CHECKED BY: APPROVED BY: SCALE:

DATE: HEADQUARTERS DESIGN: ENTRY / FROM: VRS

F.I.A COMPLIANCE FOR 205 / 45 R17 ZWR1 TL

COMPANY TECHNICAL WOULD DESIGN: DRG NO: FA-0001

SAP DOCUMENT TYPE: SAP DOCUMENT NO.: VERN: THIRUPATHUR.

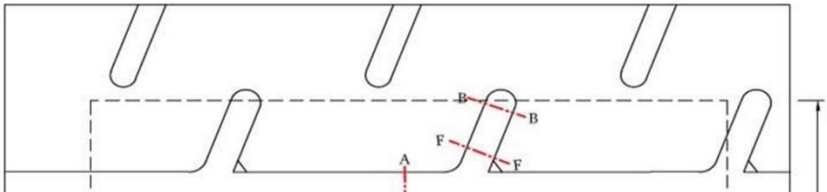


MRF TYRES

17" - 205/45R17



MRF



SECTION A-A

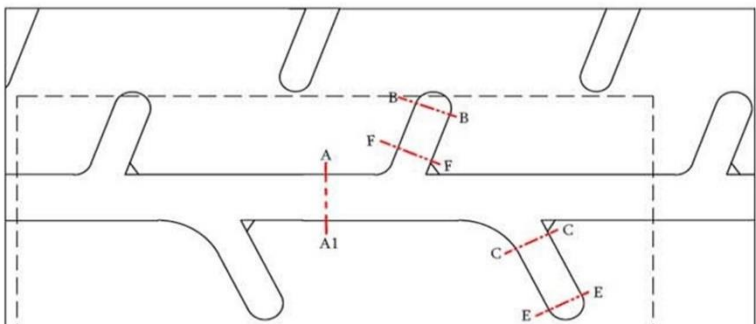
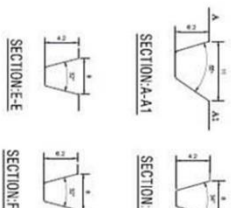
THIS DRAWING IS THE PROPERTY OF MRF TYRES LTD. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED AND IS NOT TO BE RELEASED OR DISCLOSED TO ANY OTHER PARTY WITHOUT THE WRITTEN PERMISSION OF MRF TYRES LTD. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED AND IS NOT TO BE RELEASED OR DISCLOSED TO ANY OTHER PARTY WITHOUT THE WRITTEN PERMISSION OF MRF TYRES LTD.



MRF TYRES

16" - 195/50R16

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MRF 19



MRF TYRES

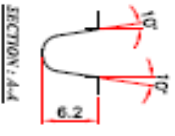
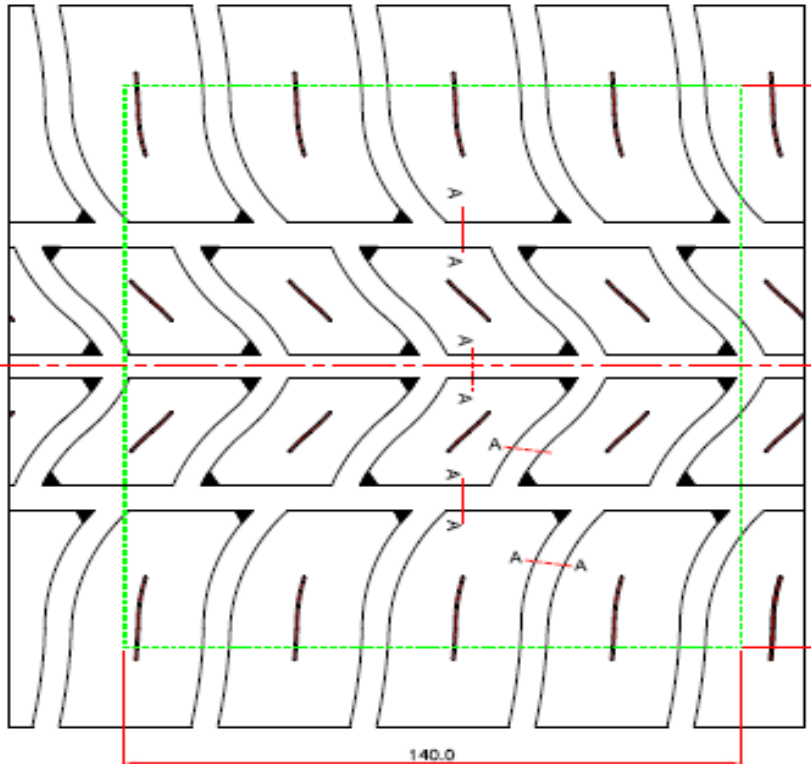
16" - 195/50R16



MRF

195 / 50 R16 ZWR1 TL

148.0



In the control area 148 x 140 mm (Indicated in the Dotted Line)

Grooved area within Min. 5.5 deep grooves > 27.5%

The total width of the circumferential line is >12 mm

The sum of the width of the grooves encountered by radial line is >16 mm

CLASS 8"
RIM 6.5"

S.N.	DATE	DESCRIPTIONS	REVISION	DRW	HEAD	W/O	DRW	PROJ

IF IN DOUBT ASK...
DO NOT SCALE THE DRAWING
All dimensions are in mm, unless otherwise specified

CHENNAI **ZWR1** INDIA

DESIGNER: **CHANDRASEKAR** APPROVED: SCALE:

SIGNATURE: **CHANDRASEKAR** DATE: **10/07/2021** HEAD/MOULD DESIGNER: ENGRD / PROJ: MTS

F.I.A COMPLIANCE FOR 195/50 R16 ZWR1 TL

COMPONENT TECHNICAL MOULD DESIGN: DWG NO: **FA-0002** REVISION: **00**

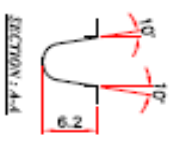
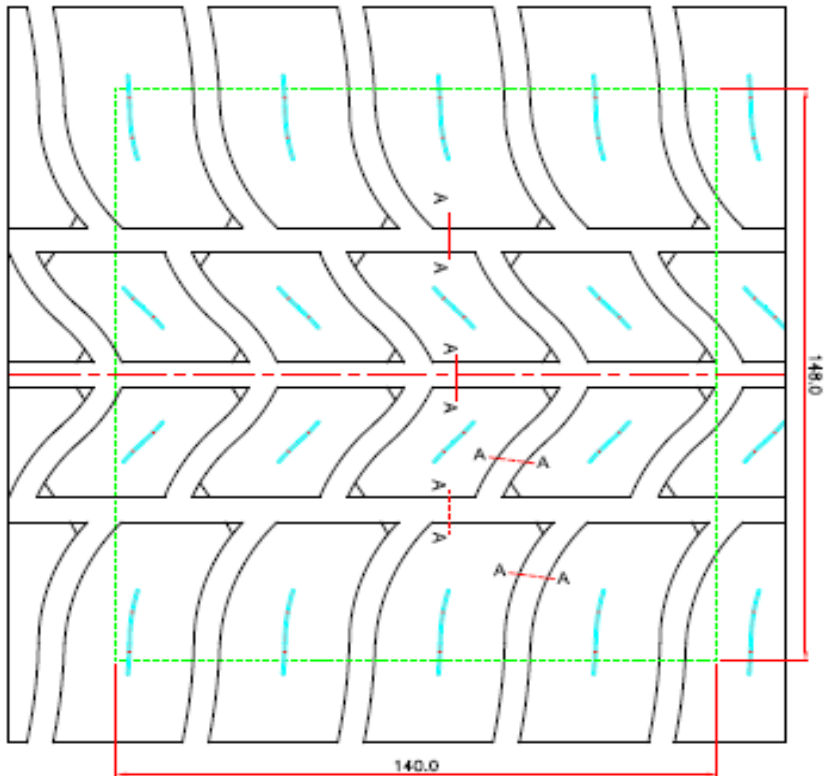
SAP DOCUMENT TYPE: SAP DOCUMENT NO.: YES



MRF TYRES

15" - 195/50R15

MRF 195 / 50 R15 ZWR1 TL



In the control area 148 x 140 mm (Indicated in the Dotted Line)
 Grooved area within Min. 5.5 deep grooves > 27.5%
 The total width of the circumferential line is >12 mm
 The sum of the width of the grooves encountered by radial line is >16 mm

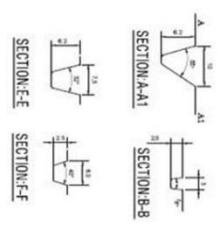
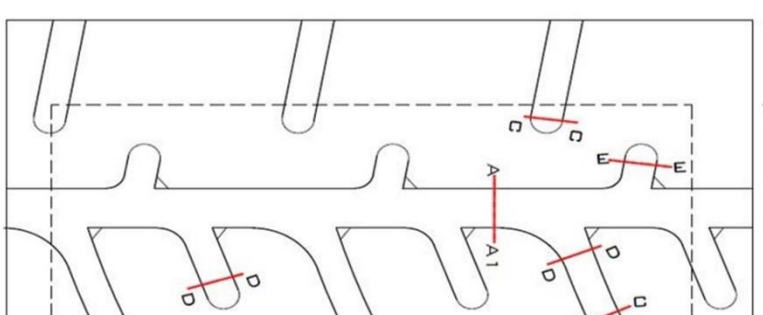
CLASS 8"
 RIM 6.5"

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SIGNATURE		DATE	
DESIGNER		18.02.2021	
HEAD-TOOL DESIGN		DRAWN / PORN	
F.I.A COMPLIANCE FOR 195/50 R15 ZWR1 TL			
COMPONENT TECHNICAL WOULD DESIGN		Dwg No. FA-0003	
SAP DOCUMENT TYPE		SAP DOCUMENT NO.	
SAP DOCUMENT NO.		VER.	
REVISION NO.		00	



15" - 195/50R15



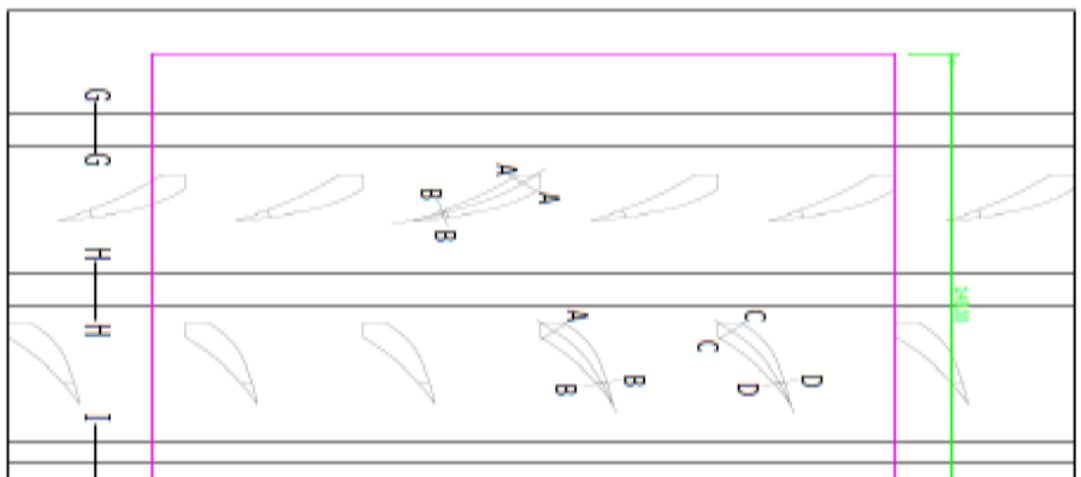
THIS DRAWING IS THE PROPERTY OF MRF LTD. THIS DRAWING IS LOANED TO THE CUSTOMER AS A REFERENCE ONLY. IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF MRF LTD. ANY CHANGES TO THIS DRAWING SHALL BE MADE BY MRF LTD. ONLY. THIS DRAWING SHALL BE CONSIDERED AS AN INSTRUMENT OF THE PROVISIONS OF THE PATENT ACT, 1970 AND THE PATENT RULES, 1972. THIS DRAWING SHALL BE CONSIDERED AS AN INSTRUMENT OF THE PROVISIONS OF THE PATENT ACT, 1970 AND THE PATENT RULES, 1972.





COOPERTIRES

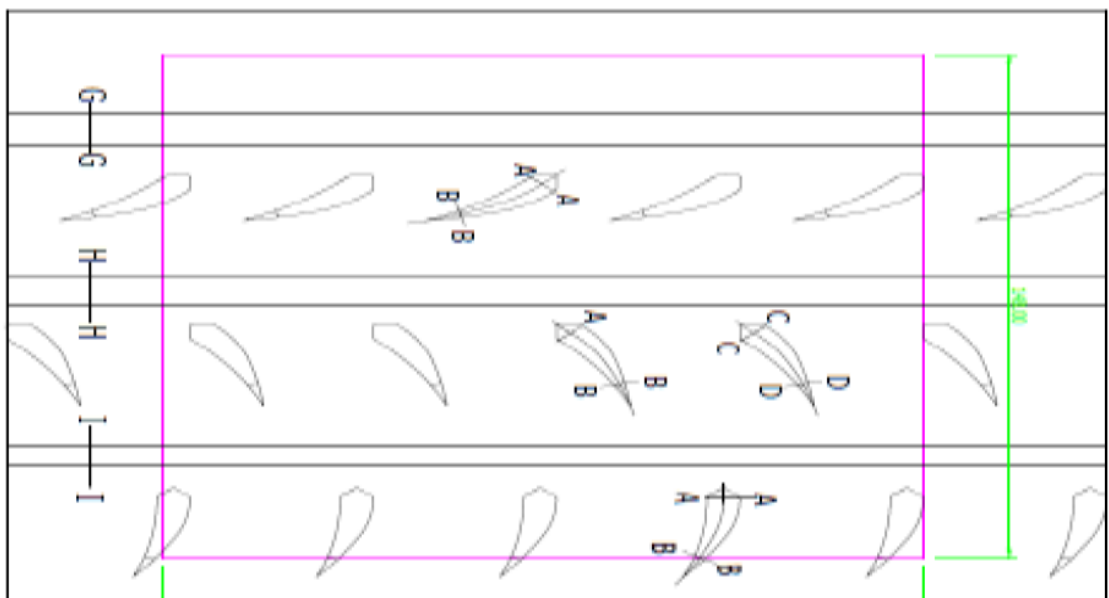
15" - 195/50R15





COOPERTIRES

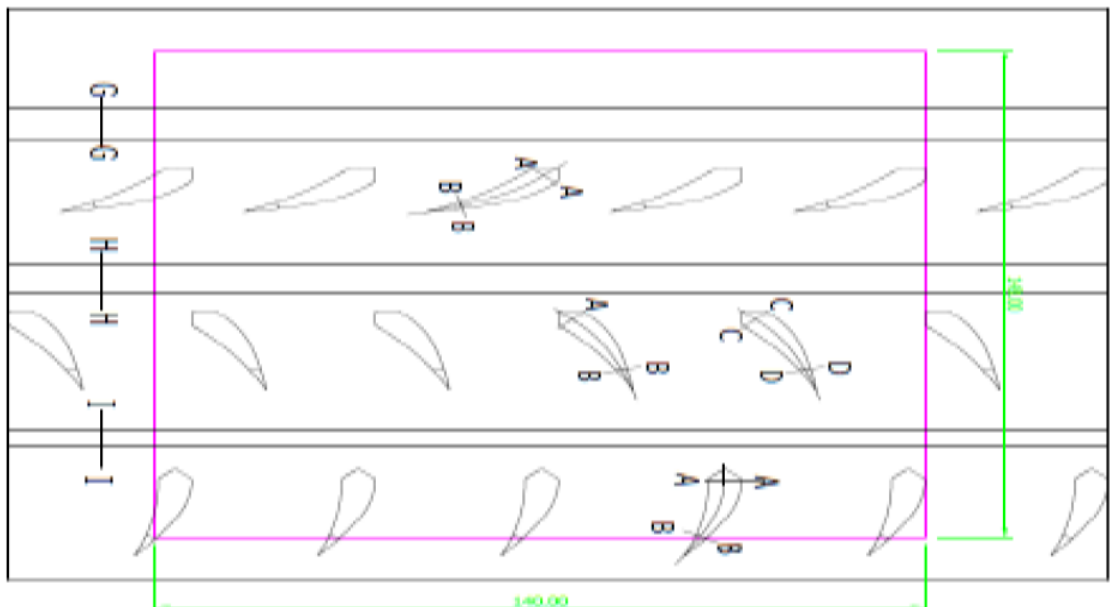
16" - 195/50R16





COOPERTIRES

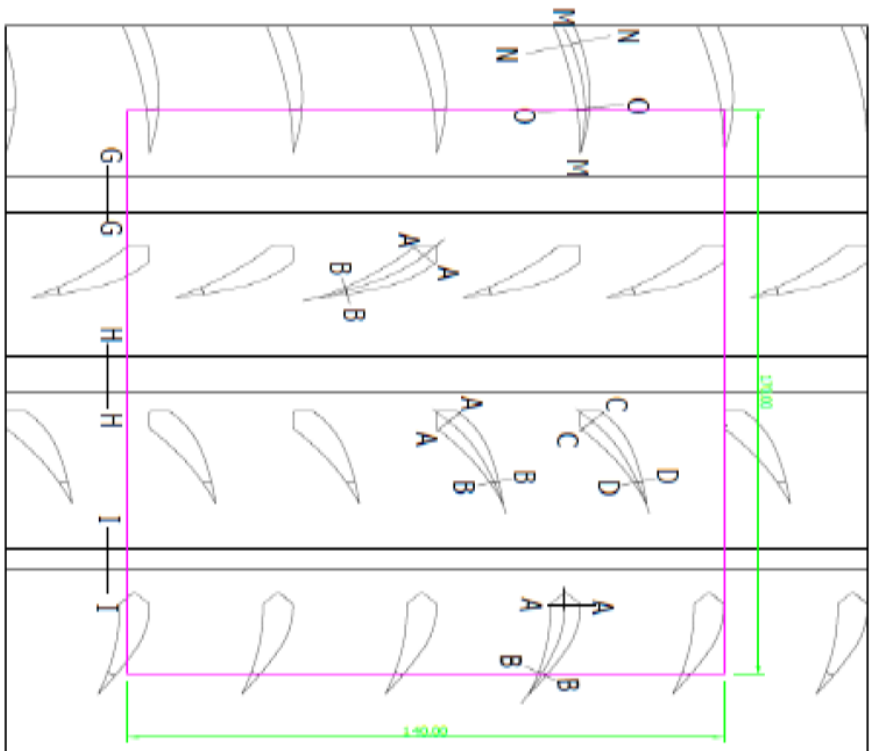
17" - 205/45R17





COOPERTIRES

18" - 225/40-18



Se

Sec

Rim
Class

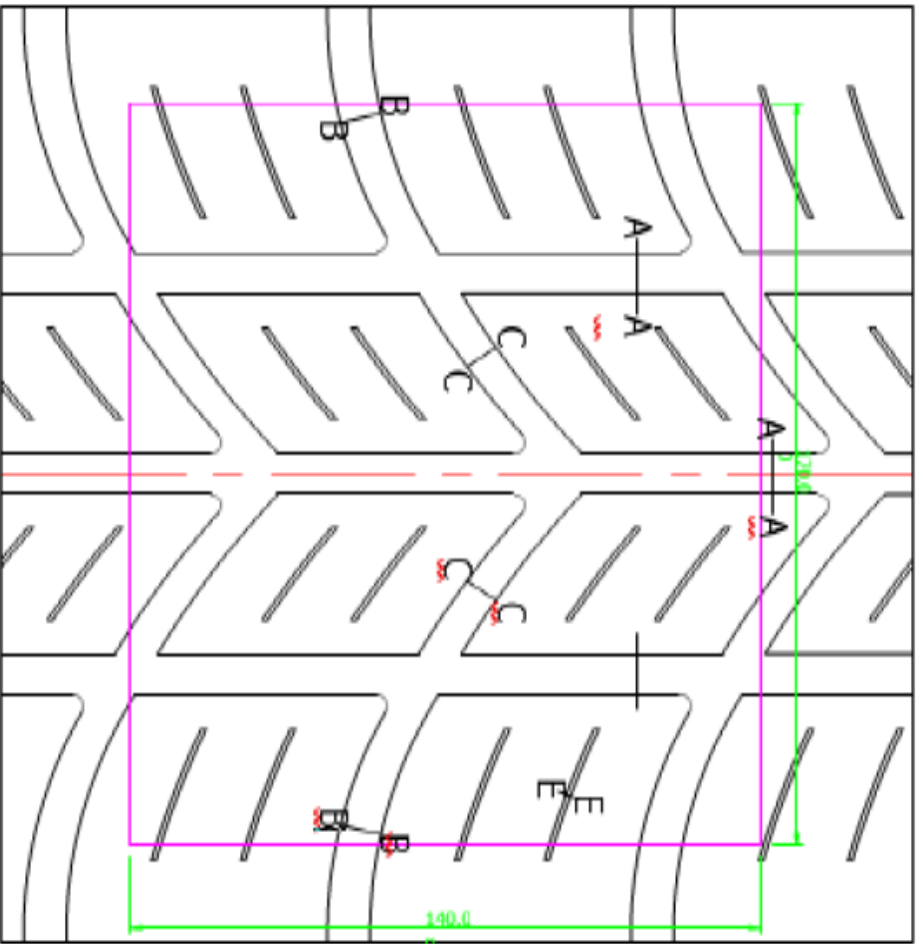
5.5m
Totata

COOPER
TIRES

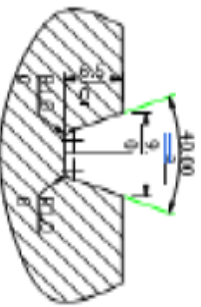


COOPERTIRES

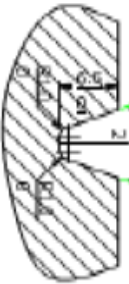
18"



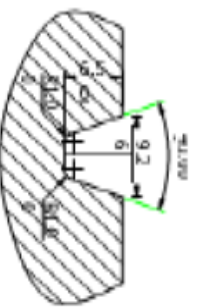
Grooved Area with min 5.5mm >27.5%



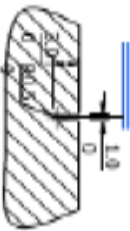
Section
A:A
SCALE 2:1



Section
B:B
SCALE 2:1



Section
C:C
SCALE 2:1



Section
E:E
SCALE 2:1

REVISIONS	DESCRIPTION	DATE	BY	CHKD BY

DATE	BY	CHKD BY
1.12.1		
13/06/05		

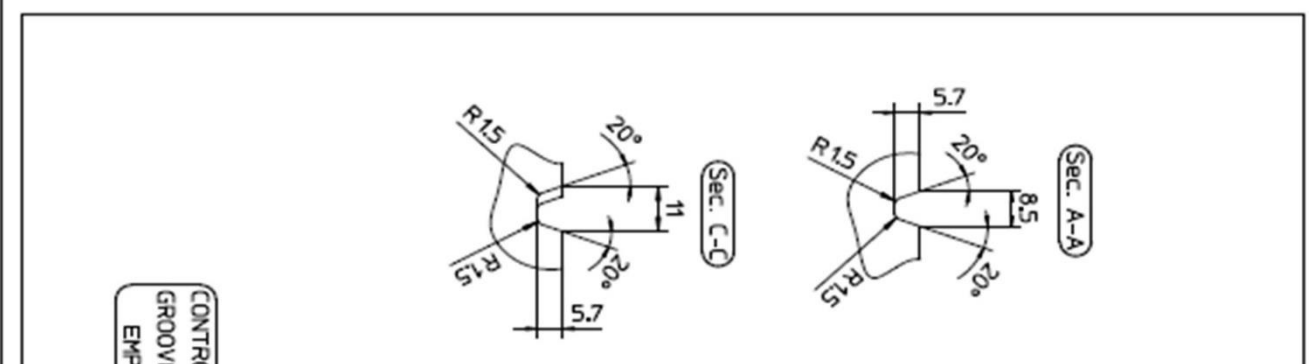


15" - 195 / 50 - R15



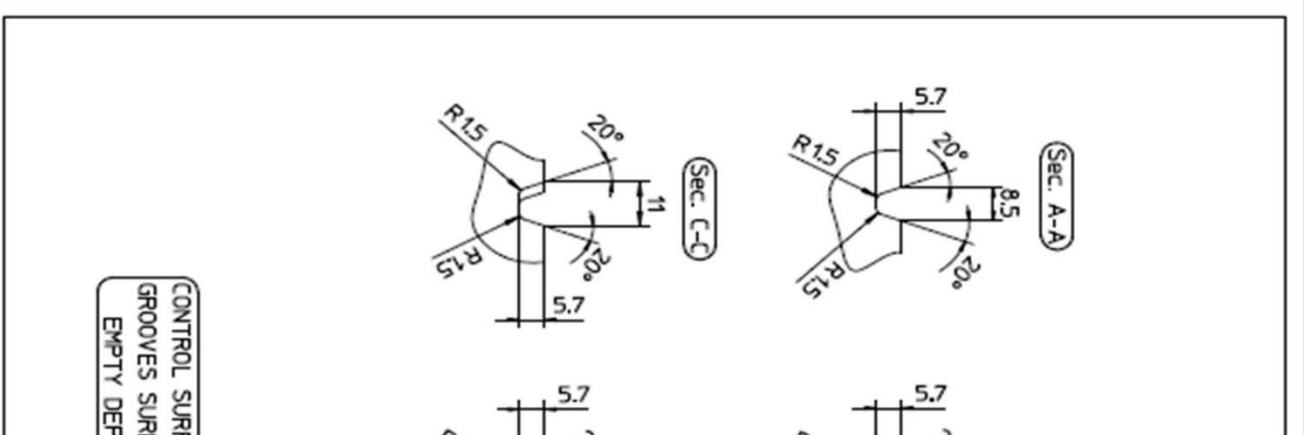


17" - 224 / 45 - R17



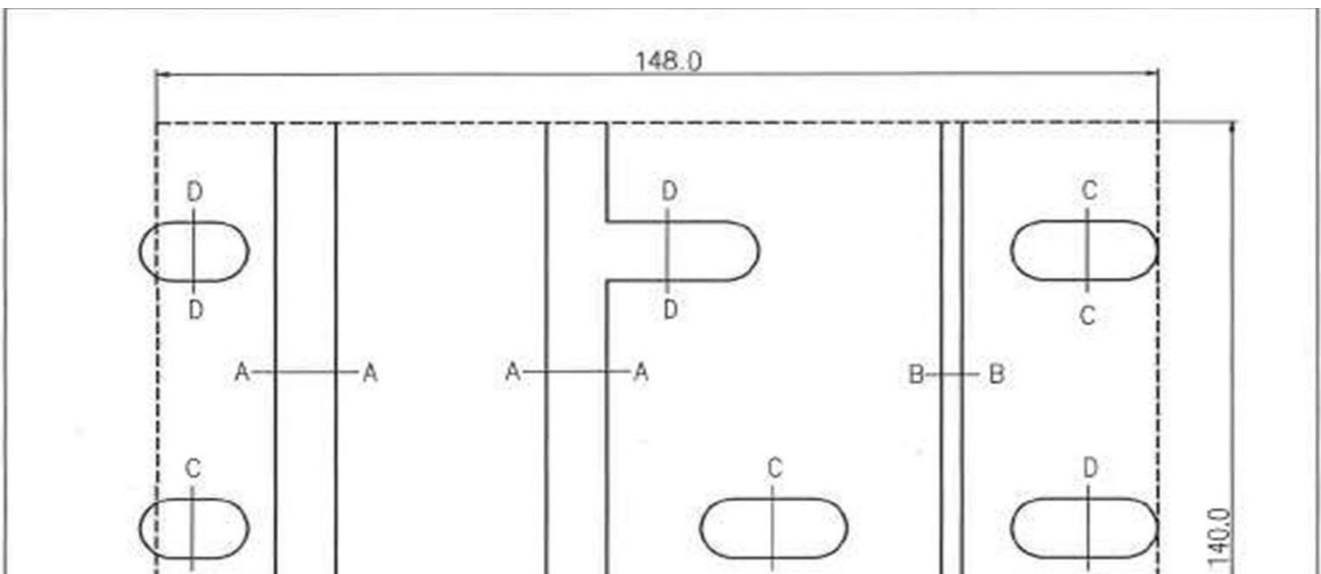


18" - 225 / 40 - R18



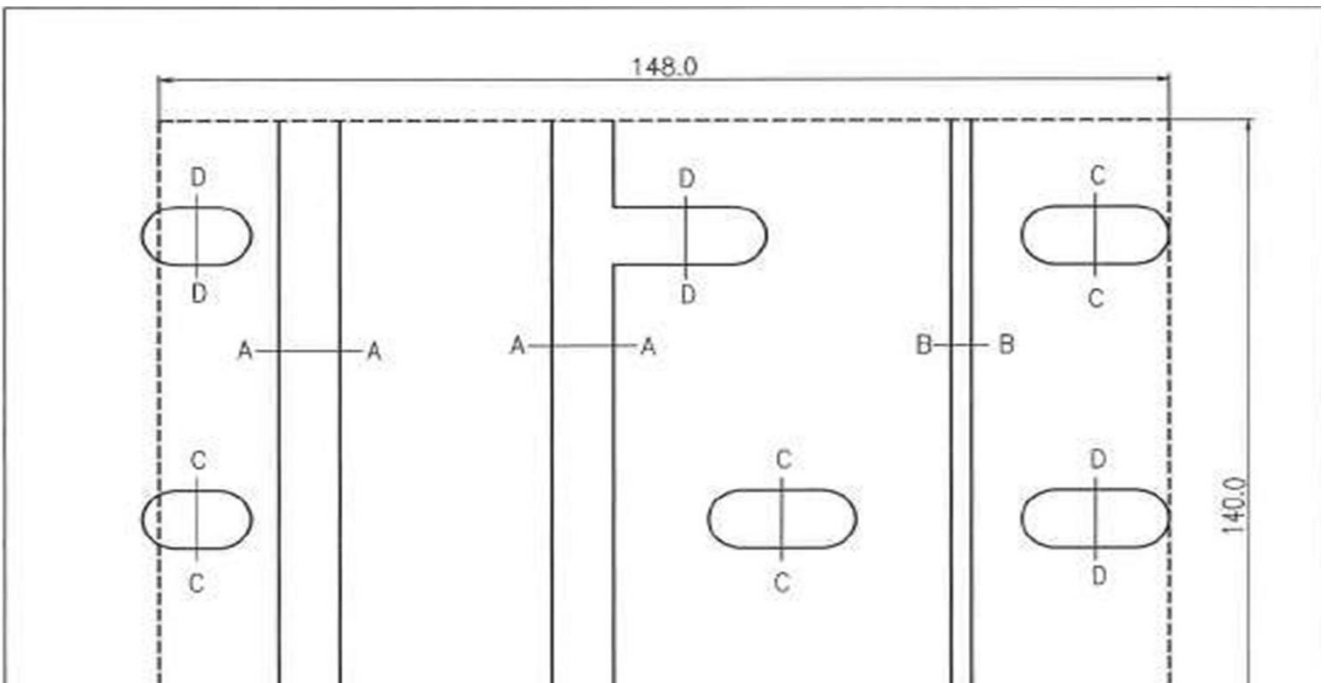


16" - 200 / 600 - R16



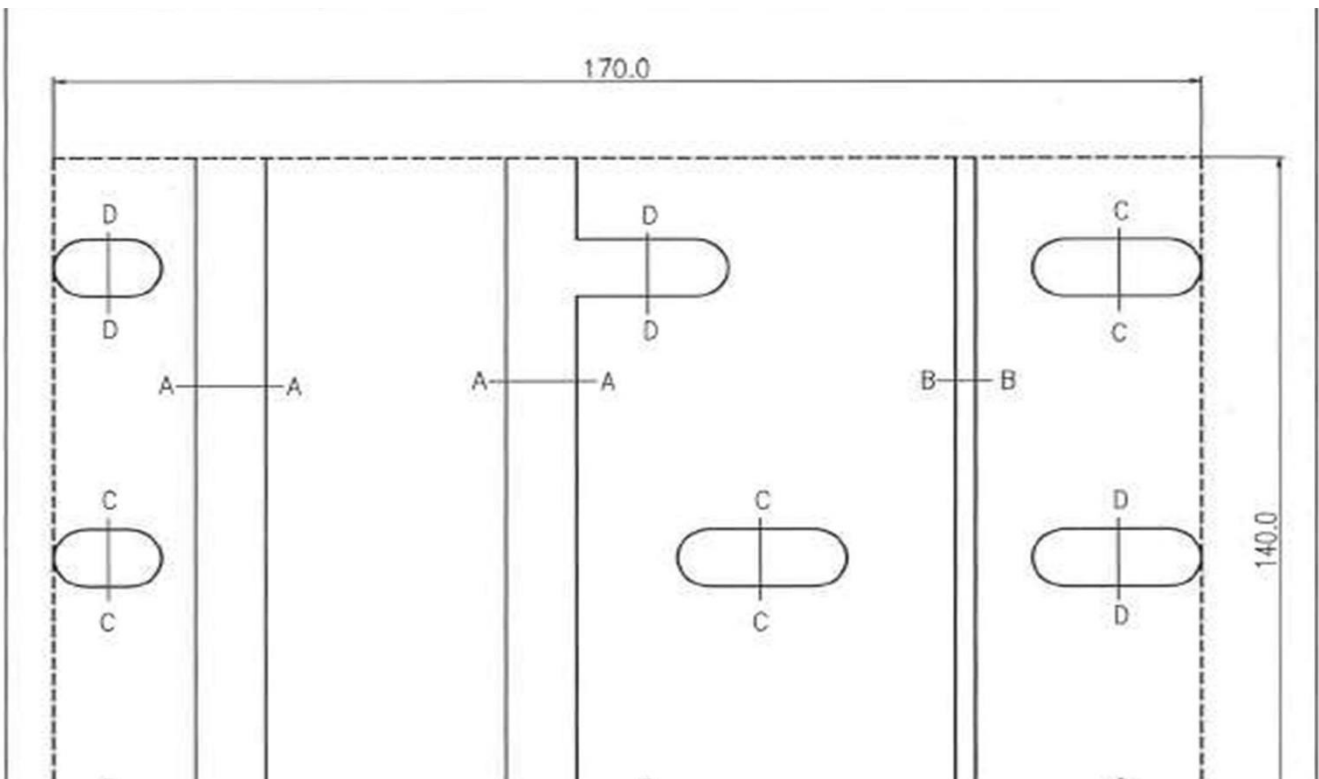


17" - 190/ 625 - R17



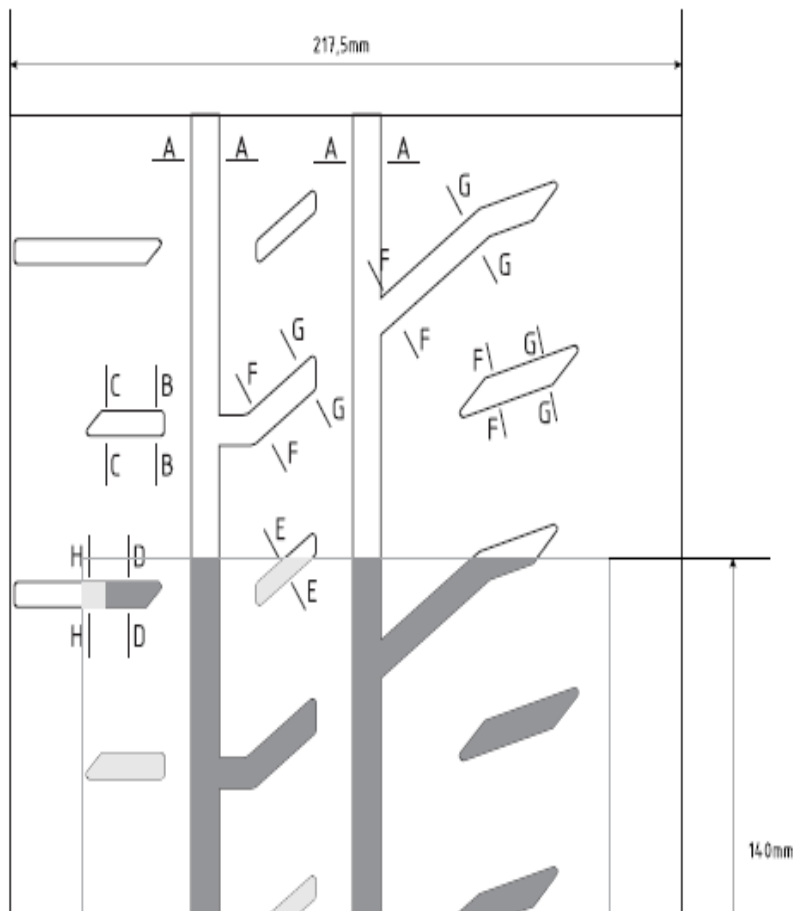


18" - 210/ 650 - R18





18" - 20 / 65 - R18 R-GT



Name: EXTREME VRC

Size: 20/65-18

Width of the tyre/rim assembly: 224mm (8,8")

Control area: 170x140mm = 23800mm²
 Over 5,5mm depth grooves area = 4550mm² (19,12%)
 Over 1,8mm depth grooves area = 5118mm² (21,50%)

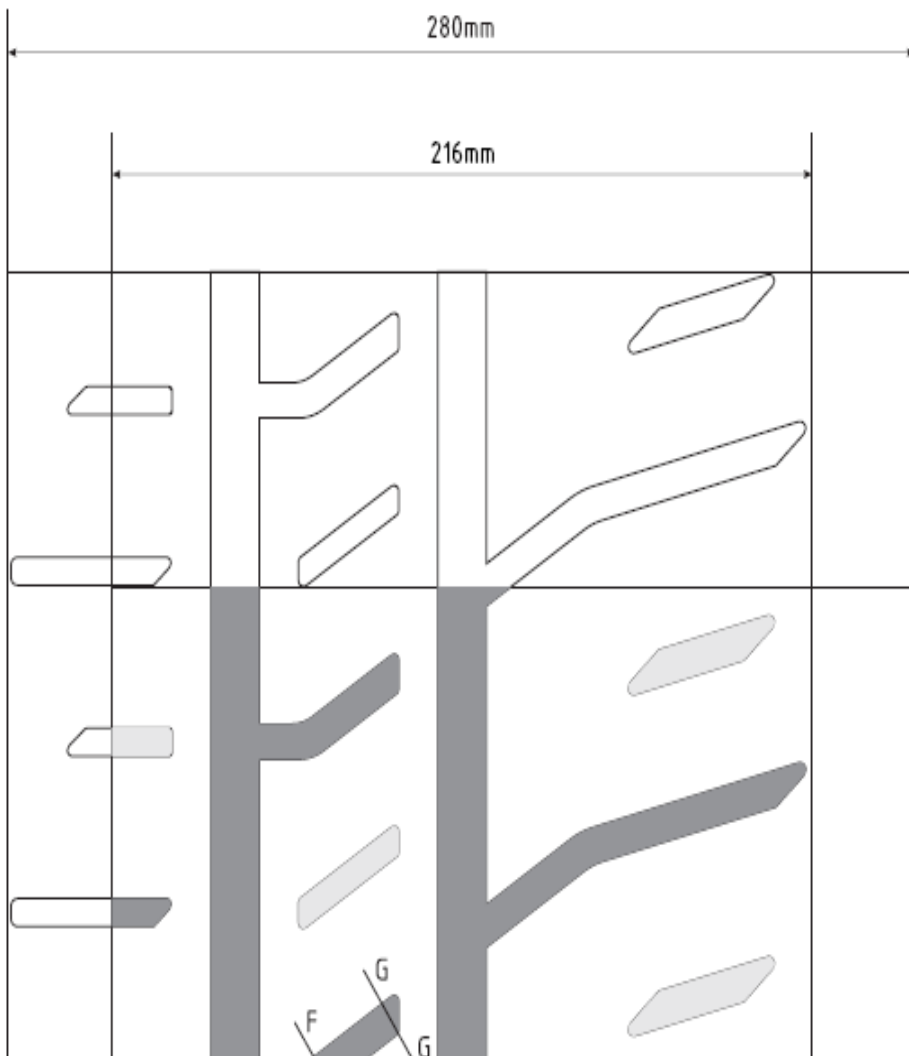
- 1,8mm ≤ groove depth ≤ 5,5mm
- 5,5mm ≤ groove depth

A-A

B-B



18" - 28 / 66 - R18 R-GT



Name: EXTREME VRC

Size: 28/66-18

Width of the tyre/rim assembly: 289mm

Class: RGT

Control area: 216x140mm = 30240mm²

Over 5,5mm depth grooves area = 6295mm² (20,82%)

Over 1,8mm depth grooves area = 7518mm² (24,86%)

- 1,8mm ≤ groove depth ≤ 5,5mm
- 5,5mm ≤ groove depth

140mm

A-A

B-B





16" - 19 / 60 R16

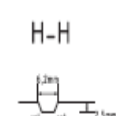
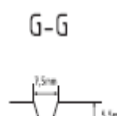
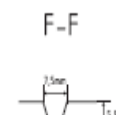
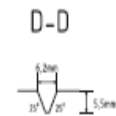
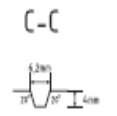
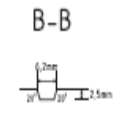
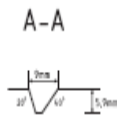
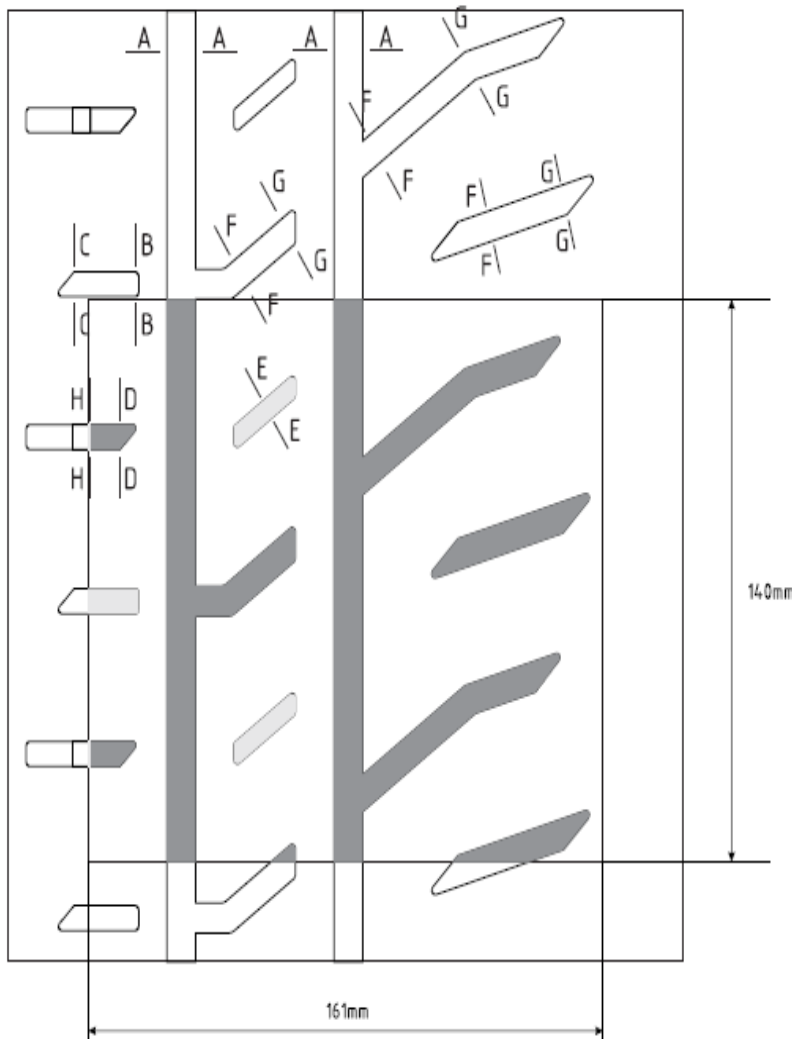
Name: EXTREME VRC

Size: 19/60-16

Width of the tyre/rim assembly: 206mm (8,1

Control area: 161x140mm = 22540mm²
Over 5,5mm depth grooves area = 4518mm² (20,04%)
Over 1,8mm depth grooves area = 4855mm² (21,54%)

 1,8mm ≤ groove depth ≤ 5,5mm
 5,5mm ≤ groove depth





Scale: 1:1

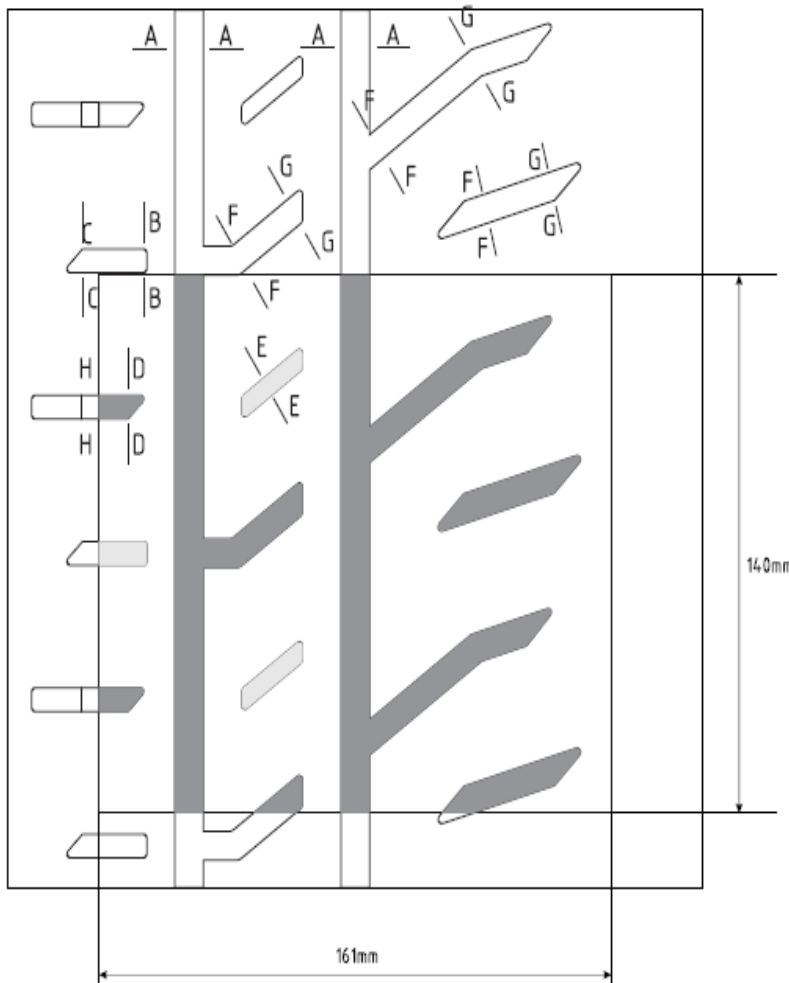
Name: EXTREME VRC

Size: 19/58-15

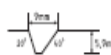
Width of the tyre/rim assembly: 207mm (8,1"

Control area: 161x140mm = 22540mm²
Over 5,5mm depth grooves area = 4530mm² (20,10%)
Over 1,8mm depth grooves area = 4852mm² (21,53%)

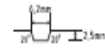
 1,8mm ≤ groove depth ≤ 5,5mm
 5,5mm ≤ groove depth



A-A



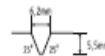
B-B



C-C



D-D



E-E



F-F



G-G



H-H



Scale: 1:1

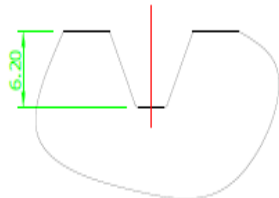
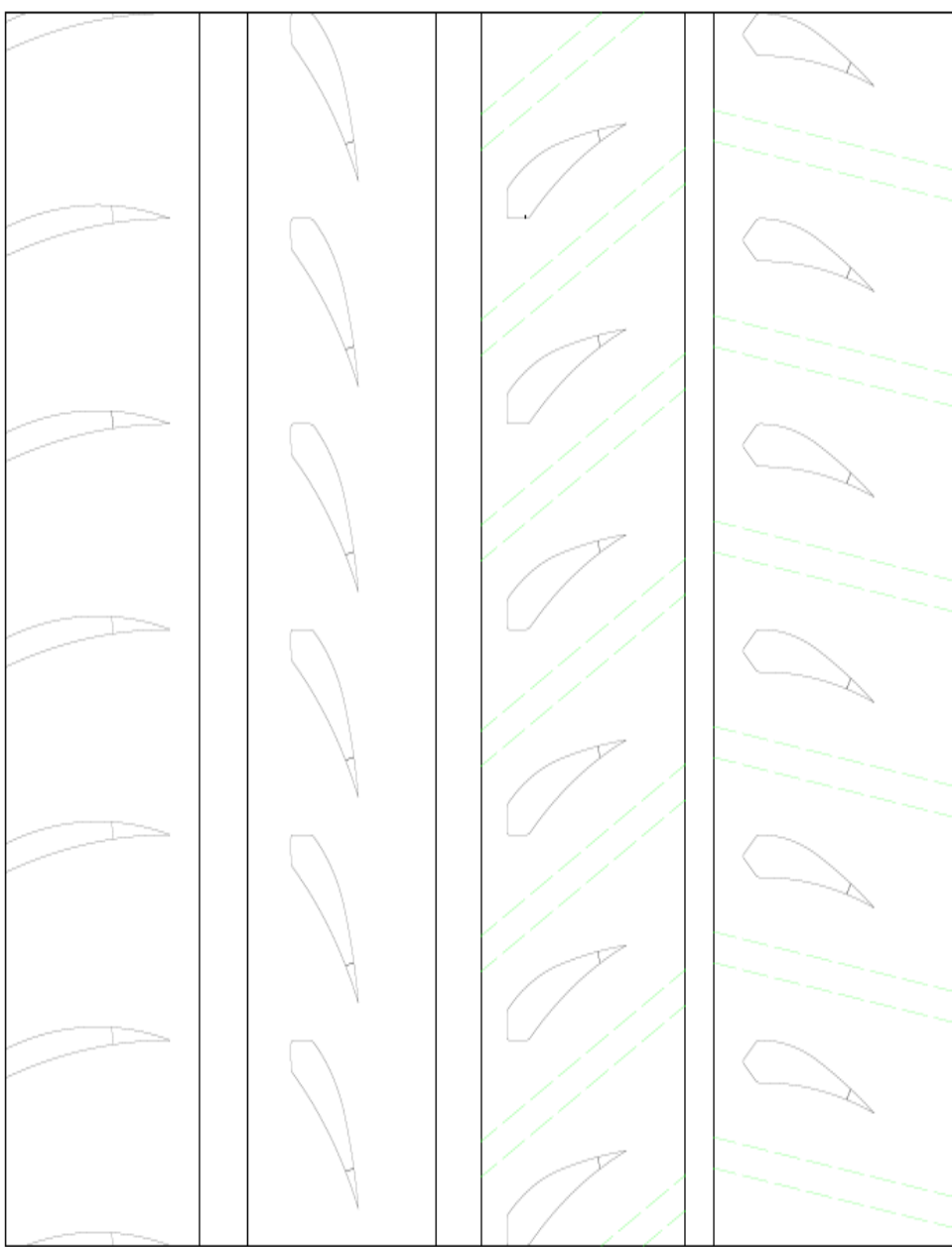
ANEXO V

LISTA DE PNEUS AUTORIZADOS PARA RECORTAR E CORTAR PARA CHUVA
SOMENTE PARA PROVAS DO ERT (TROFÉU EUROPEU DE RALIS) SE AUTORIZADOS PELA
REGULAMENTAÇÃO ESPECÍFICA



COOPERTIRES

COOPER DISCOVERER TARMAC DT02 - 225/40R18 - WET CUTTING PATTERN – PHASE 1



Cut Groove Depth

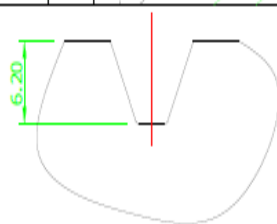
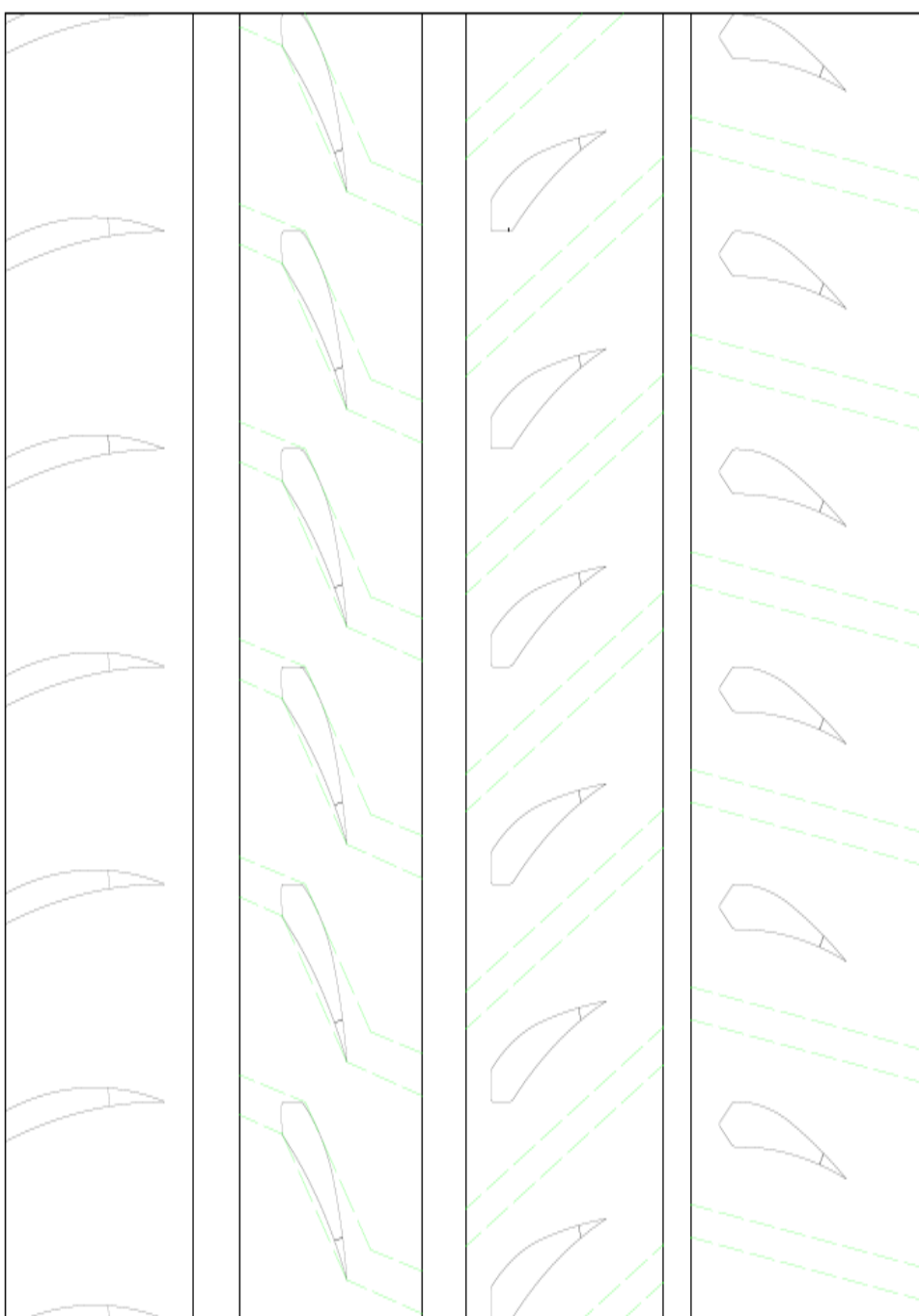
SCALE 2:1

*Green Lines to Be Cut



COOPERTIRES

COOPER DISCOVERER TARMAC DT02 - 225/40R18 - WET CUTTING PATTERN – PHASE 2



Cut Groove Depth

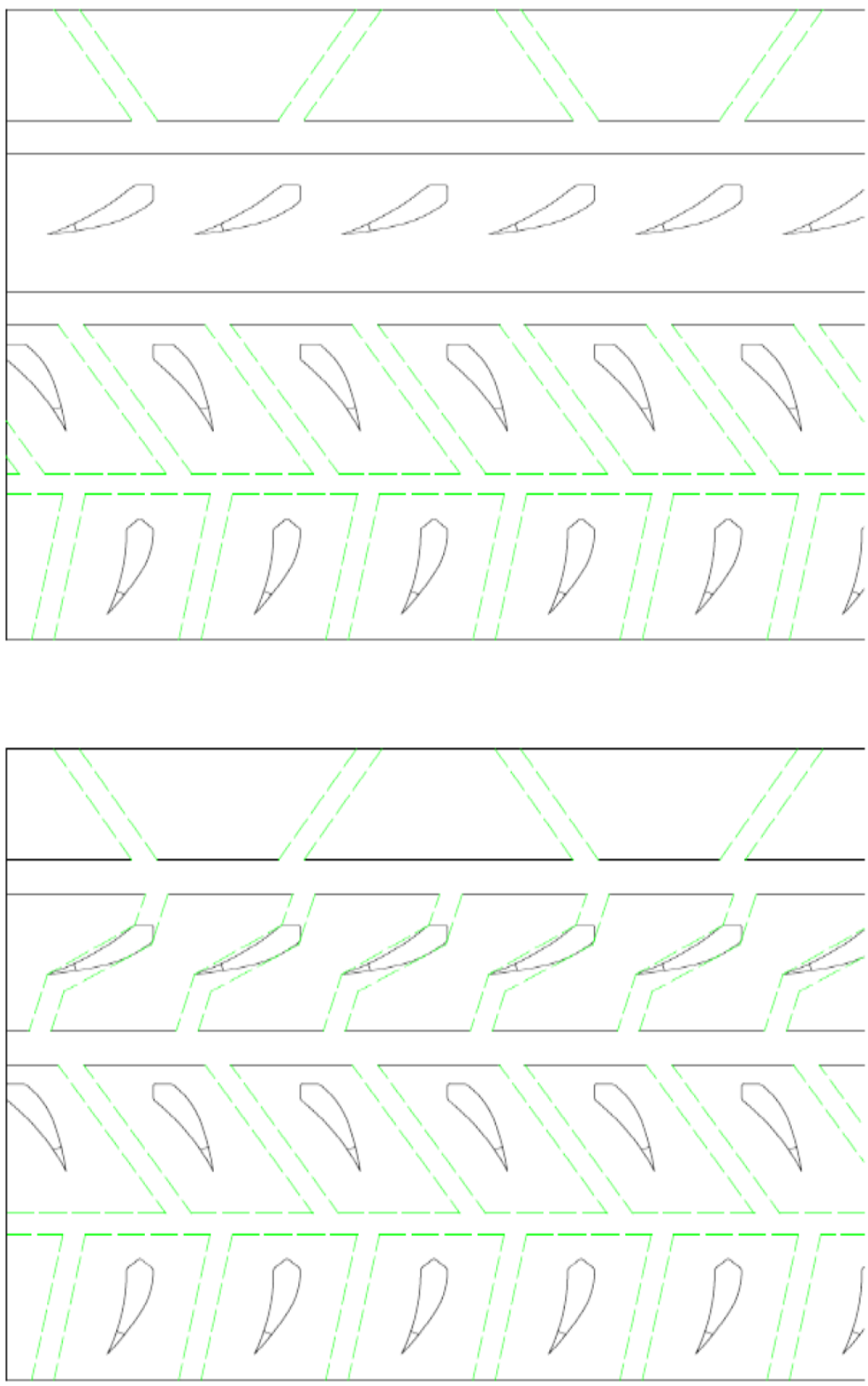
SCALE 2:1

*Green Lines to Be Cut



COOPERTIRES

COOPER DISCOVERER TARMAC DT1 - 205/45R17 - WET CUTTING PATTERN



Cut Groove Depth

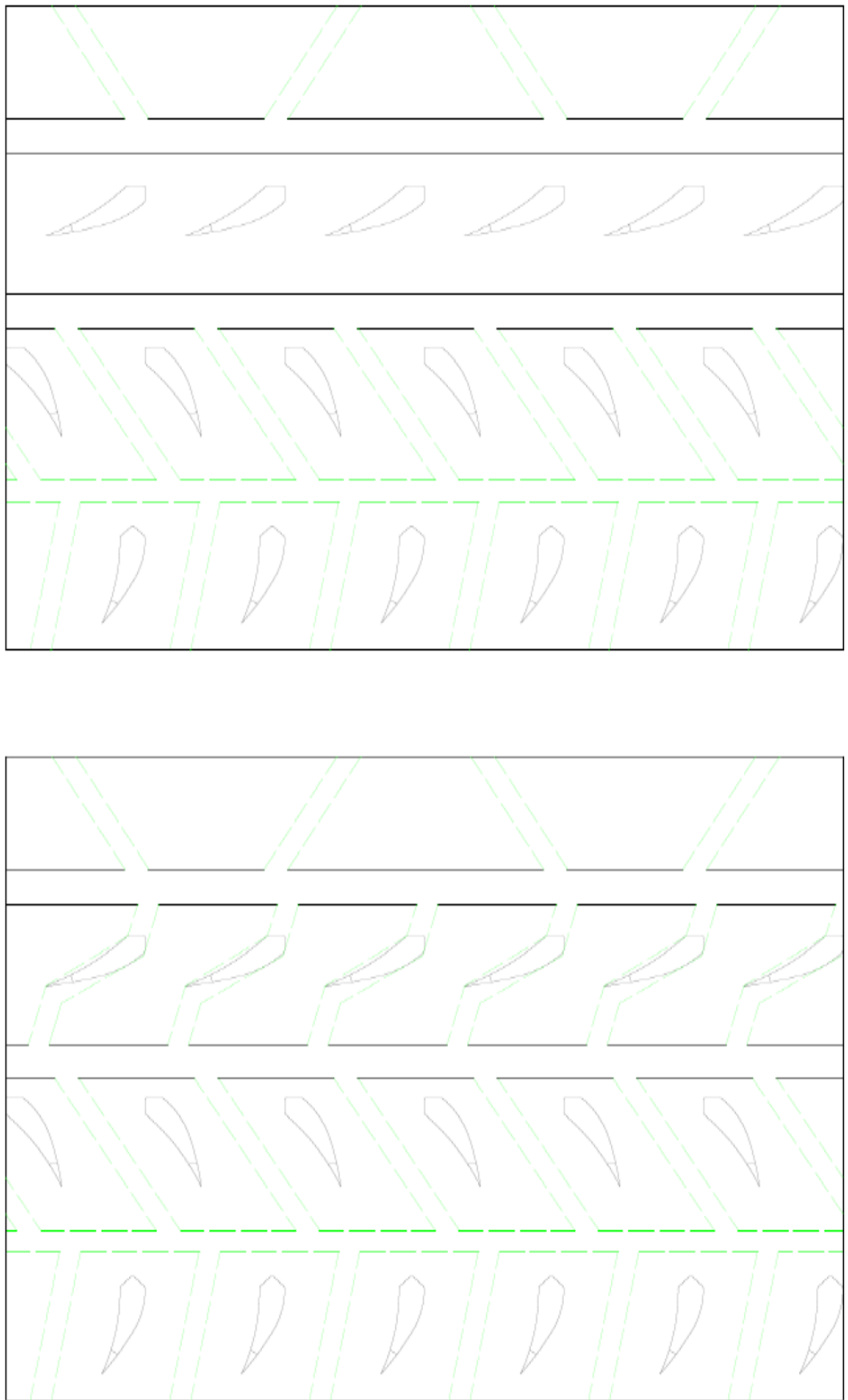
SCALE 2:1

*Green Lines to Be Cut



COOPERTIRES

COOPER DISCOVERER TARMAC DT1 - 195/50R16 - WET CUTTING PATTERN



Cut Groove Depth

SCALE 2:1

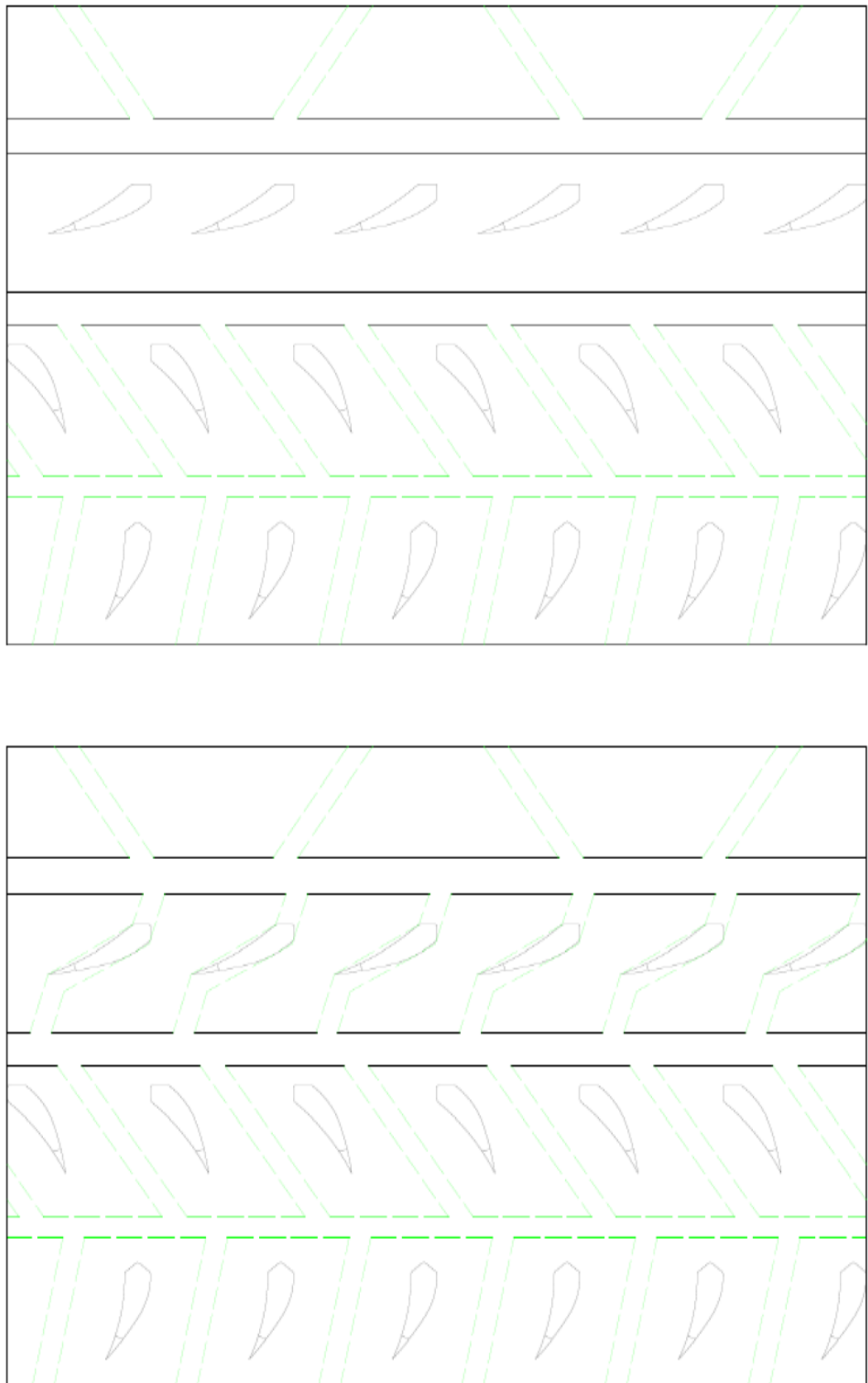


*Green Lines to Be Cut



COOPERTIRES

COOPER DISCOVERER TARMAC DT1 - 195/50R15 - WET CUTTING PATTERN



Intermediate

Full Wet

Cut Groove Depth

SCALE 2:1

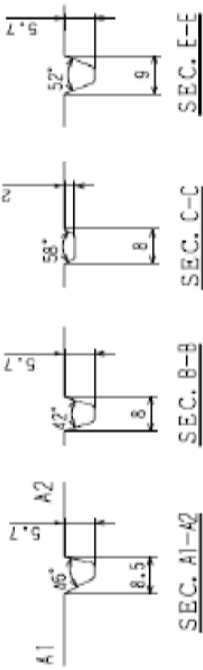
*Green Lines to Be Cut



210/650 R18

PRODUCT NAME
YOKOHAMA ADVAN A051T

PATTERN NAME
A051A



In the control area
 5.5mm grooves-18.1%
 Total grooves-22.2%

----- Control area 170X140

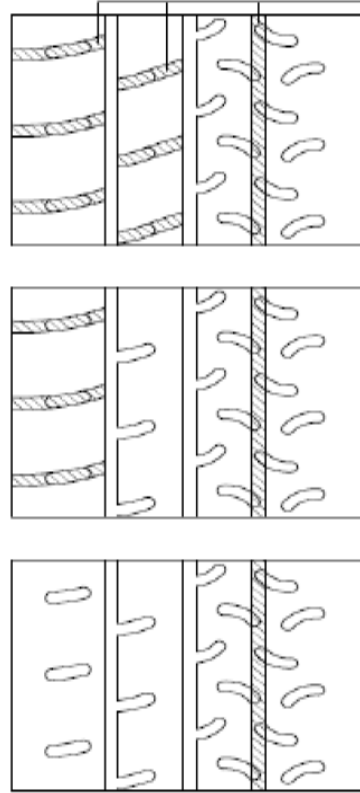
Tyre weight 9.7kg

HAND-CUT GROOVE RECOMMENDATION

WET



FULL WET

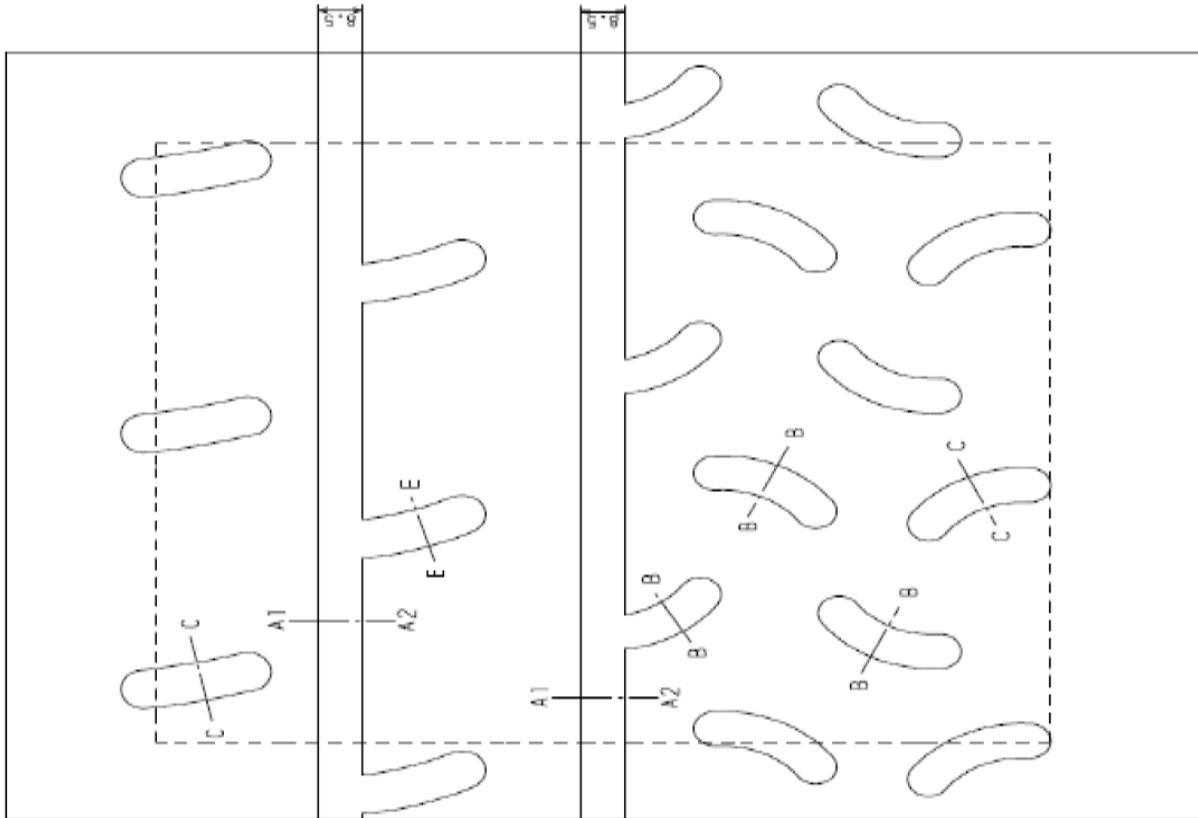


width 9mm / max depth 5.5mm

PRODUCT NAME
YOKOHAMA ADVAN A051T

PATTERN NAME
A051A

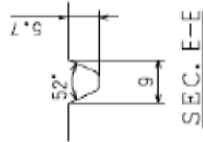
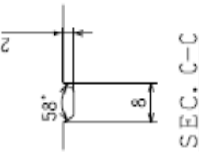
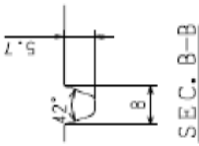
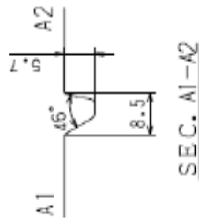
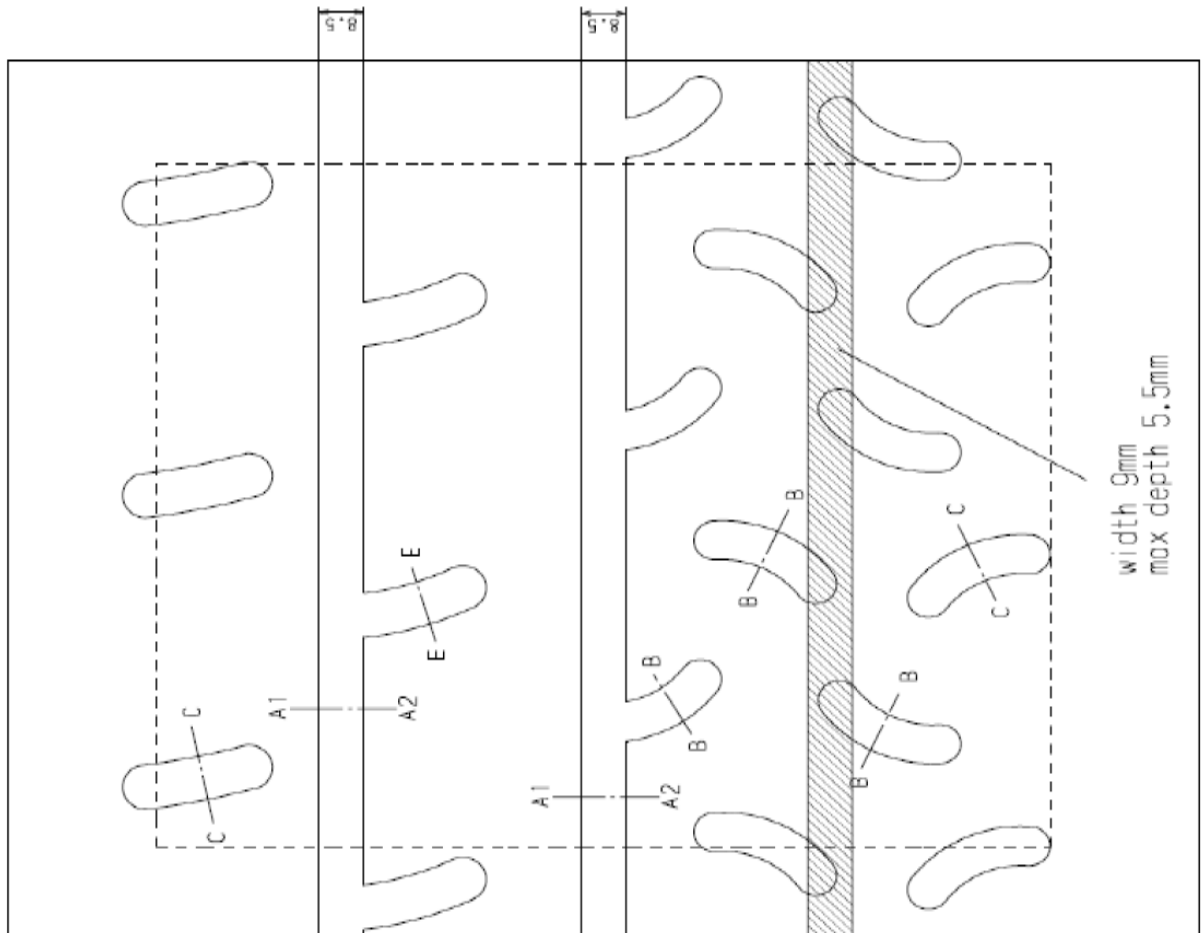
SIZE 210/650R18



YOKOHAMA ADVAN A051T
PATTERN NAME
A051A
SIZE 210/650R18

210/650 R18

HAND-CUT GROOVE RECOMMENDATION



In the control area
 5.5mm grooves-18.1%
 Total grooves-22.2%

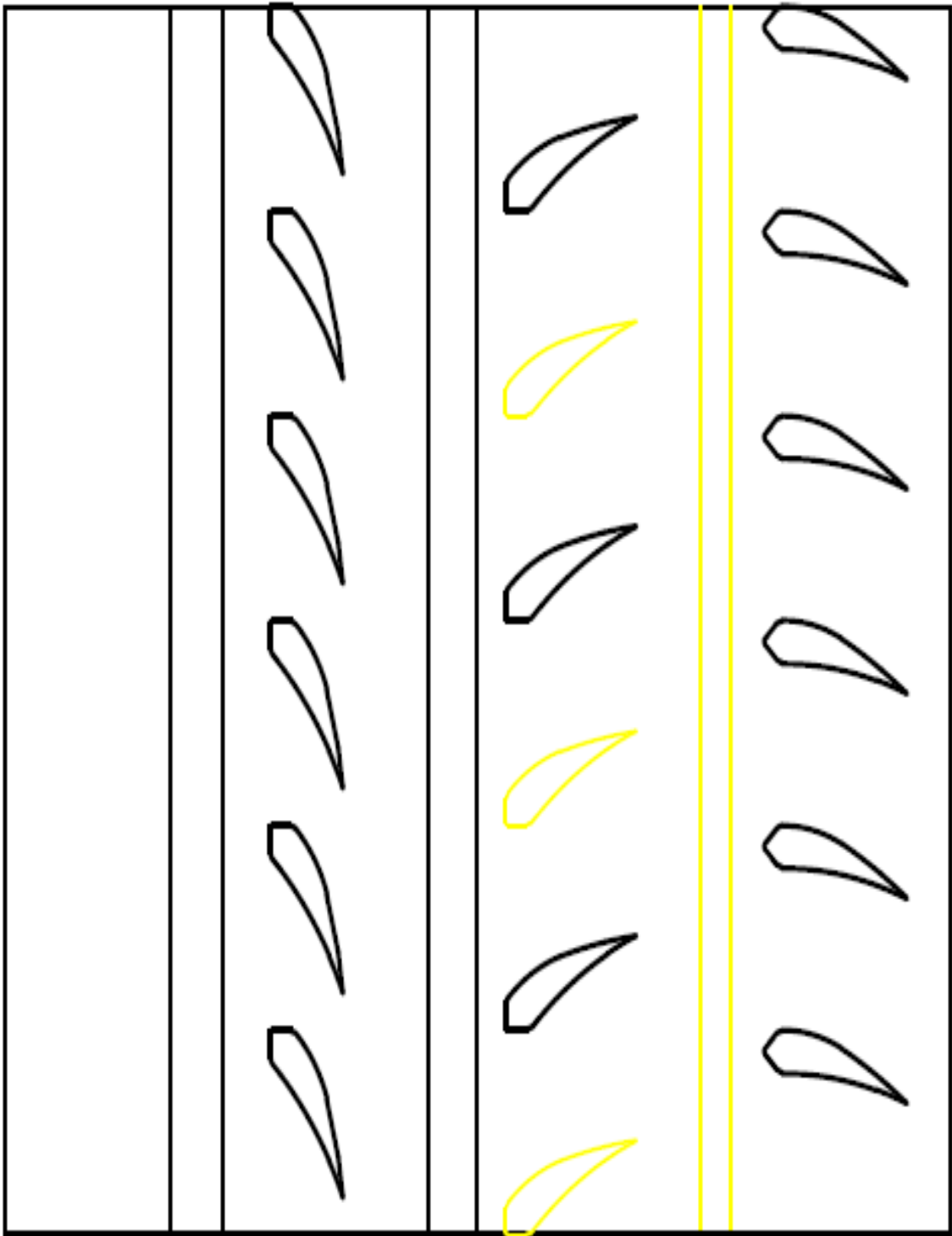
----- Control area 170X140
 Tyre weight 9.7kg

PRODUCT NAME
YOKOHAMA ADVAN A051T

PATTERN NAME
A051A

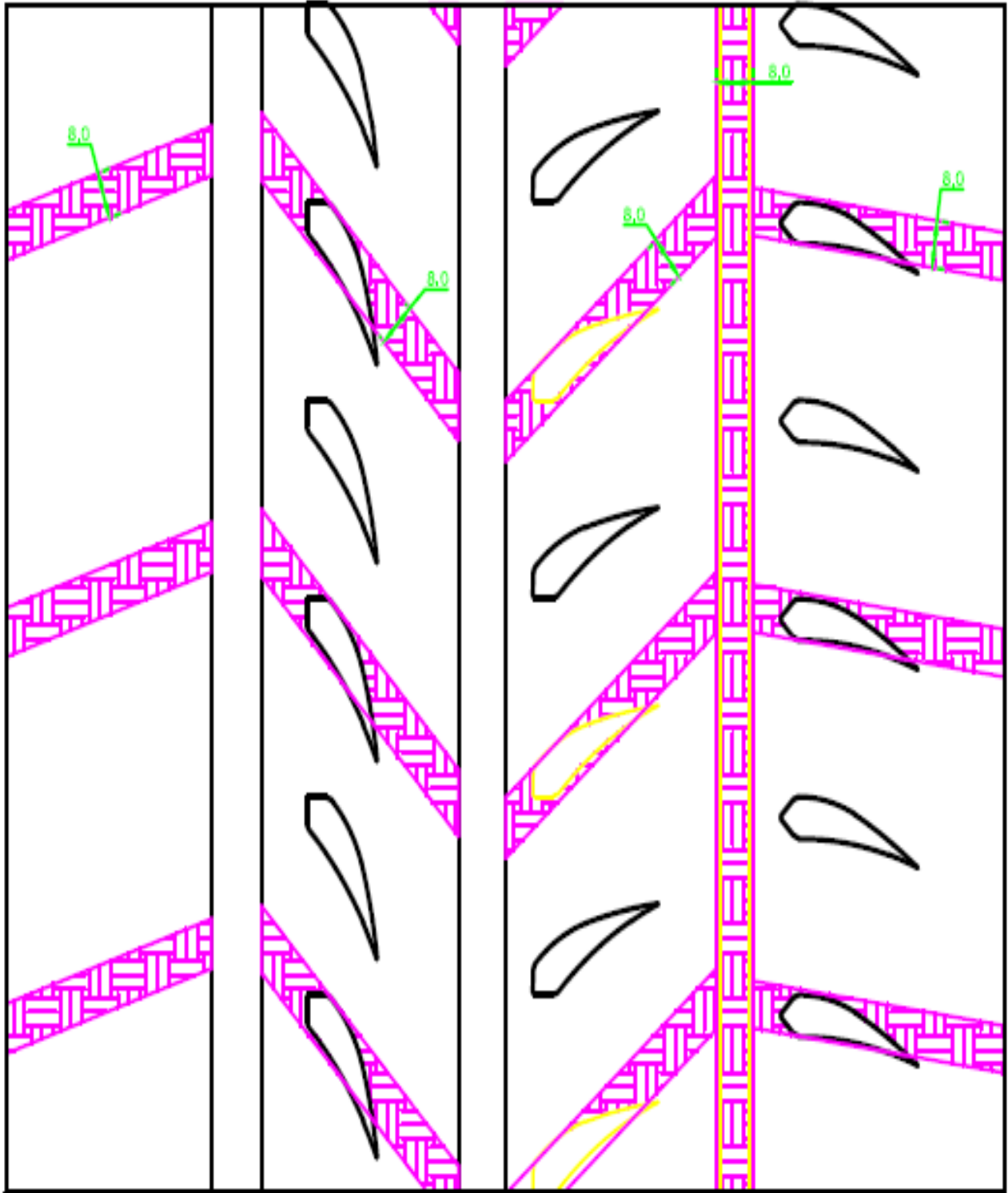
SIZE 210/650R18

DMT RC2



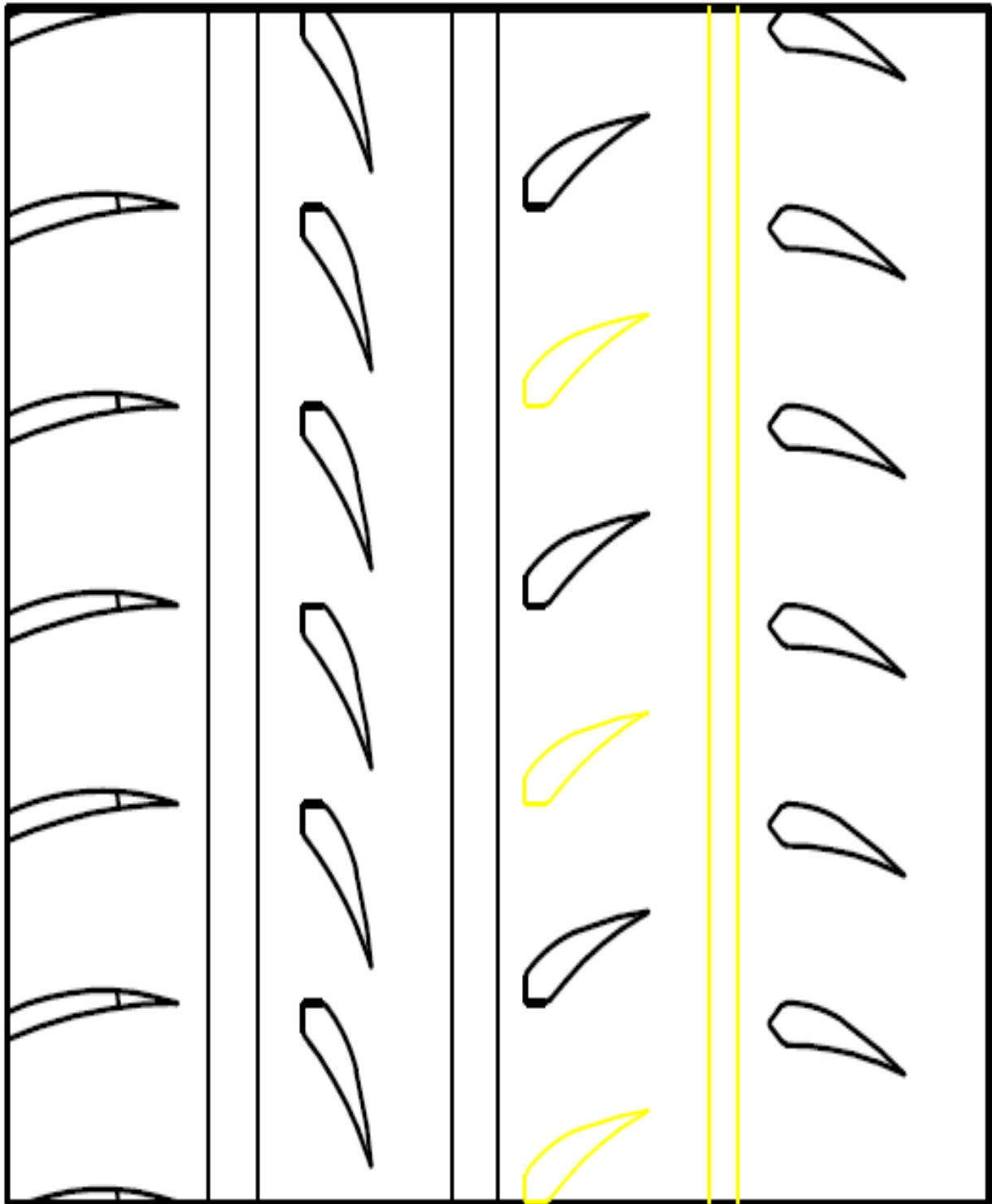
DMACK Tyres

DMT RC2 Wet Cut



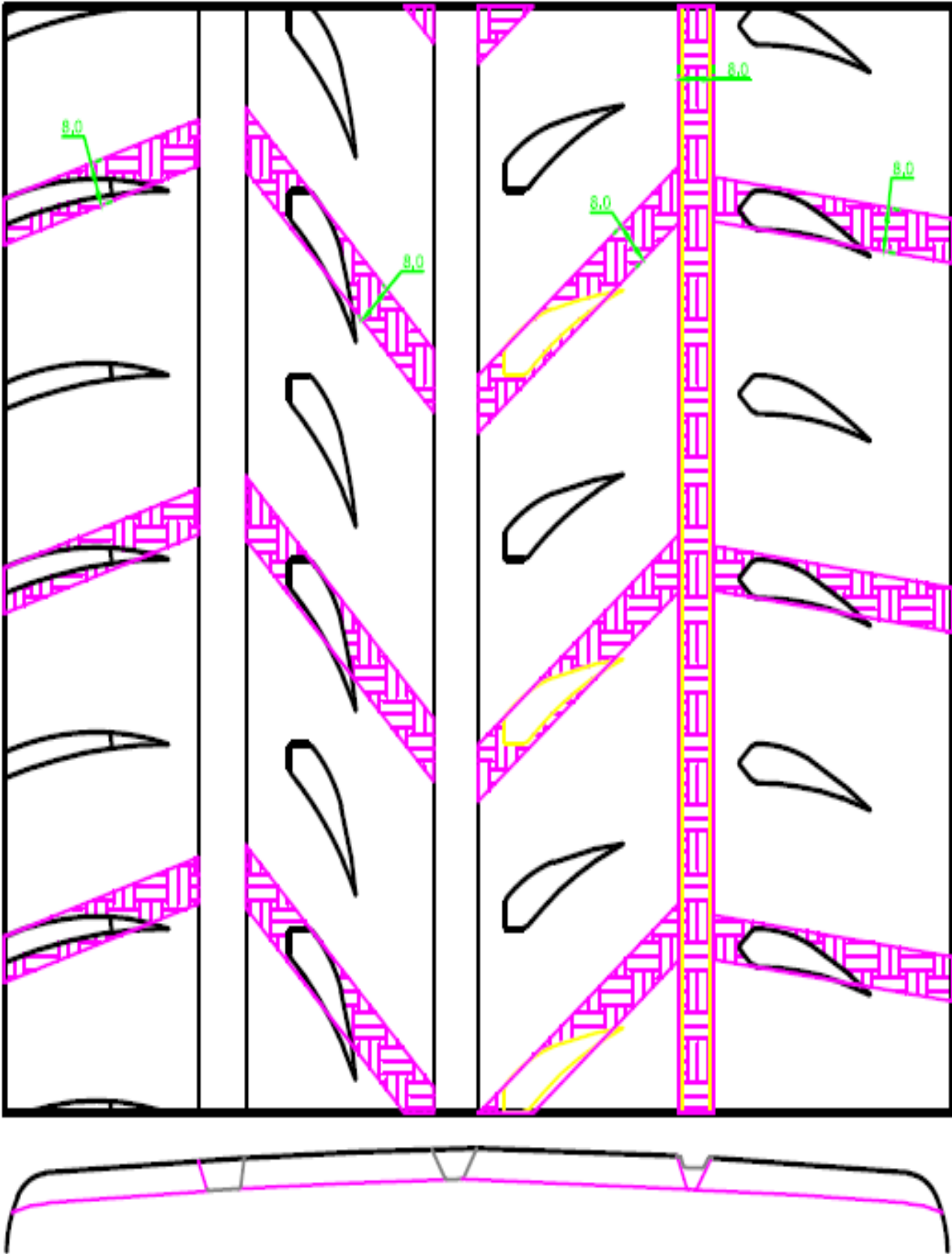
DMACK Tyres

DMT RC22



DMACK Tyres

DMT RC22 Wet Cut



MRF TYRES

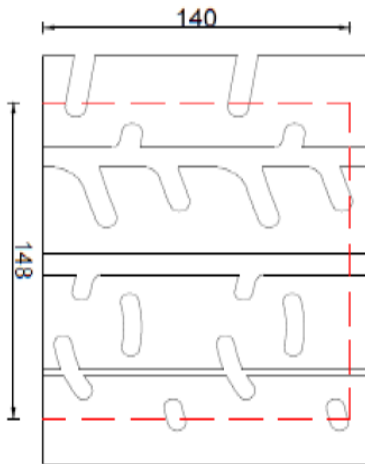
235 / 40 / R18



195/50 R15 Tarmac Rally - Hand Cut Pattern for Wet

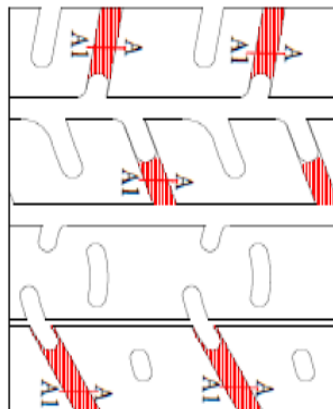
Dry Pattern

Groove Ratio > 17%



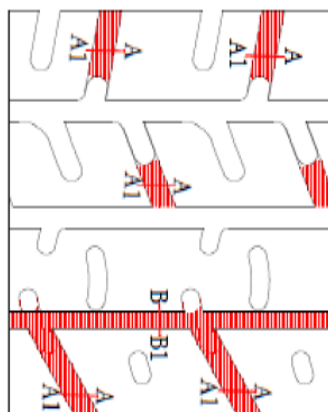
Light Rain

Groove Ratio > 27.5%



Heavy Rain

Groove Ratio > 32.5%



Control area 148 x 140 mm (Dotted Line)

SECTION: A-A1



SECTION: B-B1



A-A1 - 10 mm
B-B1 - 8 mm

Hand Cut Groove Portion

CLASS 8"
RIM 6.5"

DESIGNATION		MRF 195/50 R15	
DATE	2013	DESIGNER	MRF
REVISED DATE		DESIGNED BY	
APPROVED DATE		DRAWN BY	
DATE		CHECKED BY	
DATE		REVIEWED BY	
138/SCH15 STA TL - HAND CUT WET PATTERN			
MRF TYRE DESIGN			
MRF TYRES			

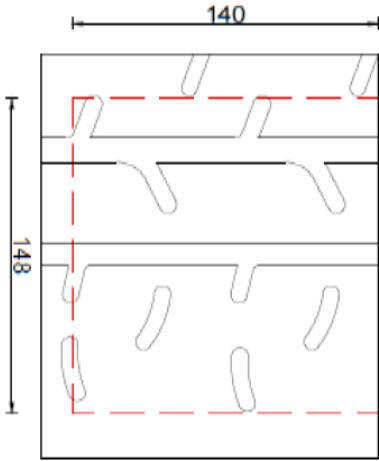


195 / 50 / R16

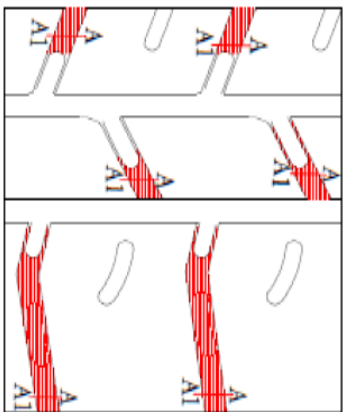


195/50 R16 Tarmac Rally - Hand Cut Pattern for Wet

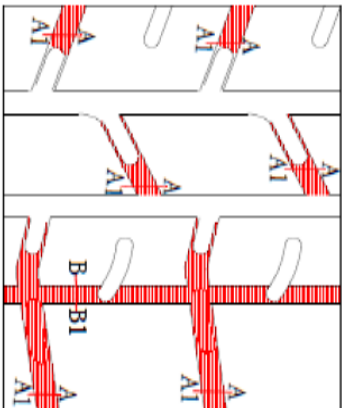
Dry Pattern
Groove Ratio > 17%



Light Rain
Groove Ratio > 27.5%



Heavy Rain
Groove Ratio > 32.5%



Control area 148 x 140 mm (Dotted Line)

SECTION: A-A1

SECTION: B-B1

A-A1 - 10 mm
B-B1 - 8 mm

Hand Cut Groove Portion

CLASS 8"
RIM 6.5"

COMPARTIMENTAL INFORMATION		MATERIALS	
ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	195/50 R16 Tarmac Rally - Hand Cut Wet Pattern		
2			
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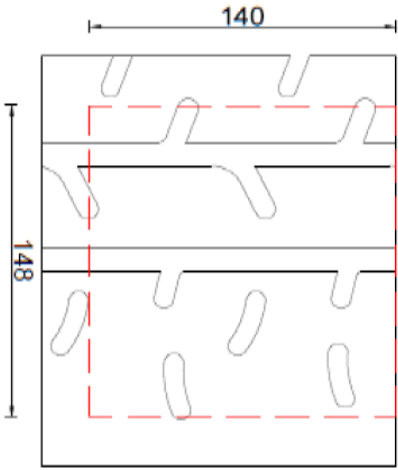


205 / 45 / R17

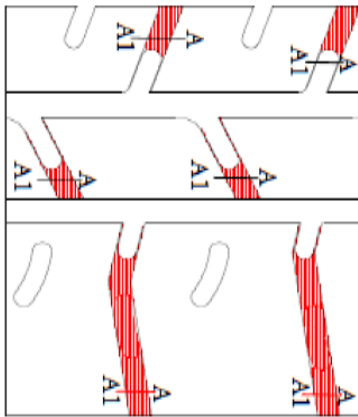


205/45 R17 Tarmac Rally - Hand Cut Pattern for Wet

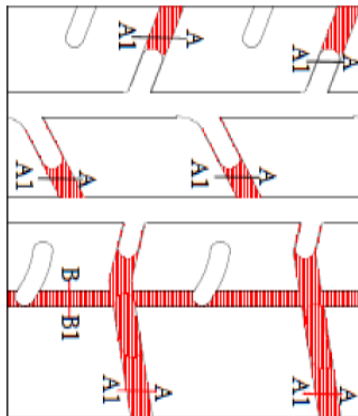
Dry Pattern
Groove Ratio > 17%



Light Rain
Groove Ratio > 27.5%



Heavy Rain
Groove Ratio > 32.5%



Control area 148 x 140 mm (Dotted Line)

SECTION: A-A1

SECTION: B-B1

A-A1 - 10 mm
B-B1 - 8 mm

Hand Cut Groove Portion

**CLASS 8"
RIM 7.0"**

NO.	DESCRIPTION	QTY	UNIT
1	205/45R17 TLA TC HAND CUT WET PATTERN	1	PC



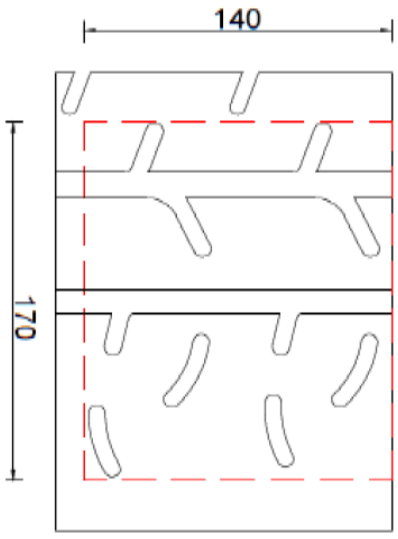
MRF TYRES

235 / 40 / R18



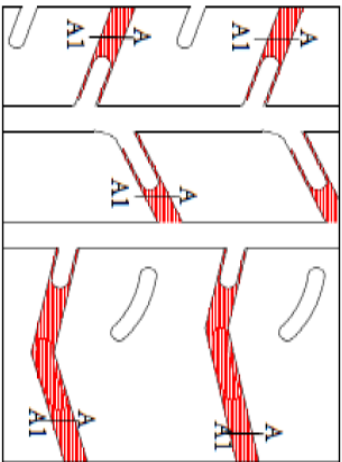
235/40 R18 Tarmac Rally - Hand Cut Pattern for Wet

Dry Pattern
Groove Ratio > 17%



Control area 170 x 140 mm (Dotted Line)

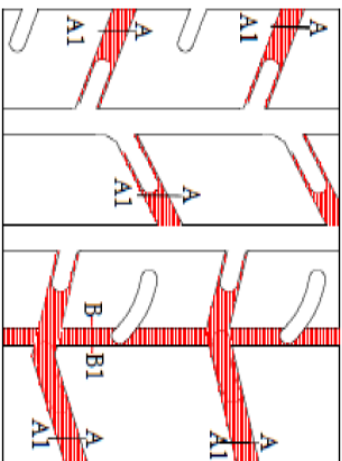
Light Rain
Groove Ratio > 27.5%



SECTION: A-A1

SECTION: B-B1

Heavy Rain
Groove Ratio > 32.5%



A-A1 - 10 mm
B-B1 - 8 mm

Hand Cut Groove Portion

CLASS 9"
RIM 8.0"

GENERAL		MRF		RACE	
ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Hand Cut Groove Portion				
2	Hand Cut Groove Portion				
3	Hand Cut Groove Portion				
4	Hand Cut Groove Portion				
5	Hand Cut Groove Portion				
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97	Hand Cut Groove Portion				
98	Hand Cut Groove Portion				
99	Hand Cut Groove Portion				
100	Hand Cut Groove Portion				

235/40R18 ZTA TL - HAND CUT WET PATTERN

FA-0108



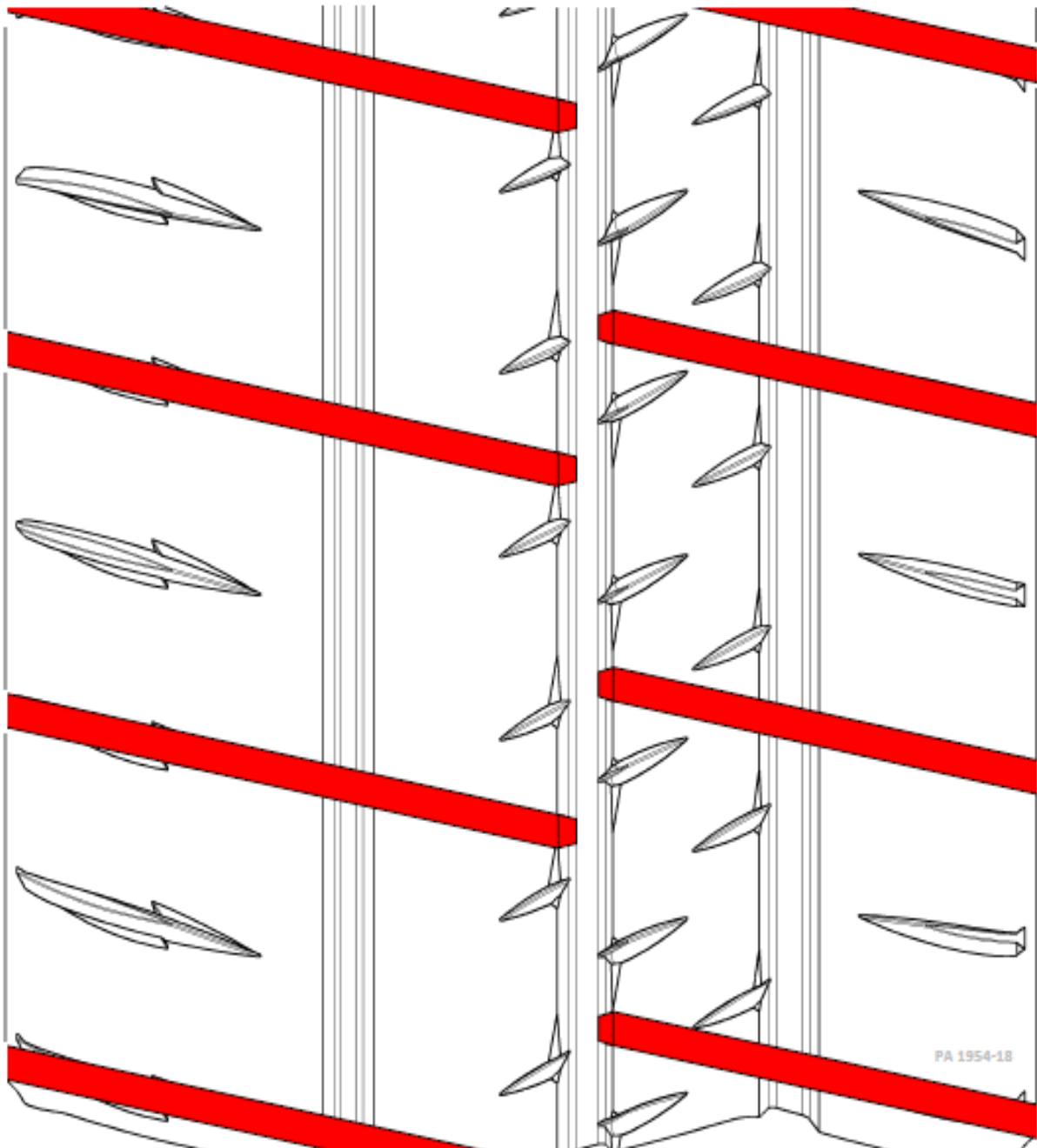
Category : GT Asphalt Rally
Dimension : 24 / 65 – 18 TL PILOT SPORT R
Cutting plan of Pilot Sport R tread pattern for RGT

Clermont-Ferrand the 20/05/2020

cuts (red parts) with Blade R2



Extérieur véhicule



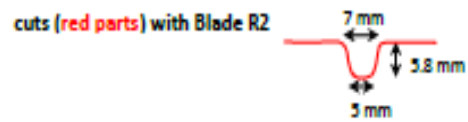


Catégorie : GT Asphalt Rally

Clermont-Ferrand the 20/05/2020

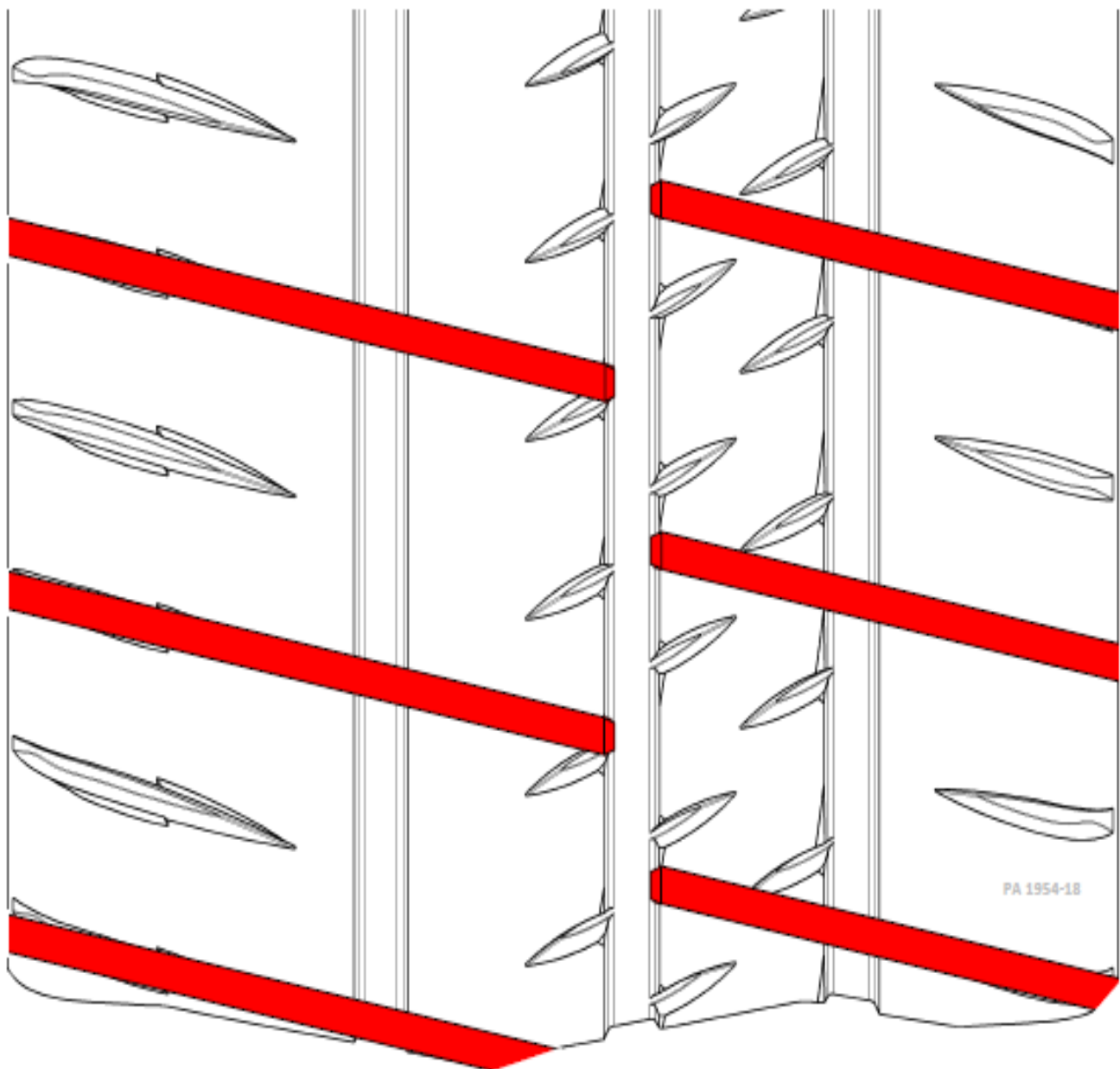
Dimension : 29 / 65 – 18 TL PILOT SPORT R

Cutting plan of Pilot Sport R tread pattern for RGT



Extérieur véhicule

Intérieur véhicule





Category : Asphalt Rally

Clermont-Ferrand the 20/05/2020

Dimensions : 20/65-18, 20/63/17, 19/63-17, 19/60-16, 20/58-15, 19/58-15, 16/57-14

Cutting plan of Pilot Sport R tread pattern

cuts (red parts) with Blade R2

