

# Proposal of Plan for the Max. Power on new GTR with T/F

2018. 3.

Korea Transportation Safety Authority  
(Korea Automobile Testing & Research Institute)

## ➤ Comparisons on testing method of KMVSS & Reg. EU No. 134/2014

### ◆ Test Procedure of Net Power in KMVSS

- ✓ Measurement at the end of the crankshaft in principle
- ✓ Taking into account the actual efficiency of the transmission(or gearbox) where the net power can only be measured with them fitted to the propulsion.



### ◆ Reg. EU No. 134/2014(Efficiency $\eta_j$ of each of the components)

Type		Efficiency
Gear wheel	Spur gear	0.98
	Helical gear	0.97
	Bevel gear	0.96
Chain	Roller	0.95
	Silent	0.98
Belt	Cogged	0.95
	Vee	0.94
Hydraulic coupling or convector	Hydraulic coupling <sup>(1)</sup>	0.92
	Hydraulic convector <sup>(1)</sup>	0.92

## ➤ Type of Measurement on Max. Power

### ◆ Test facilities of Manufacturers in Korea

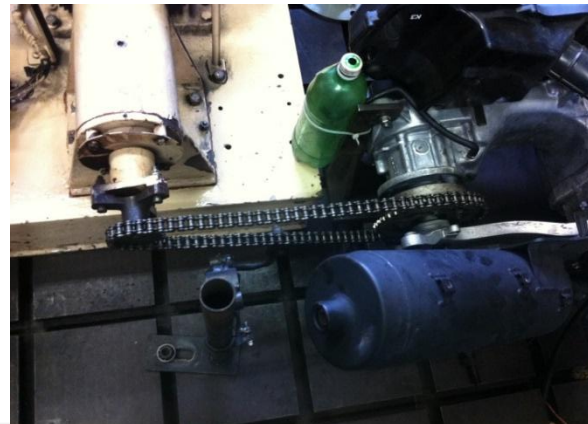


#### ✓ Test Facilities on Engines

- Rev. of Dynamo. : 4,000 ~ 6,000 rpm
- Torque Range : ~ 300Nm

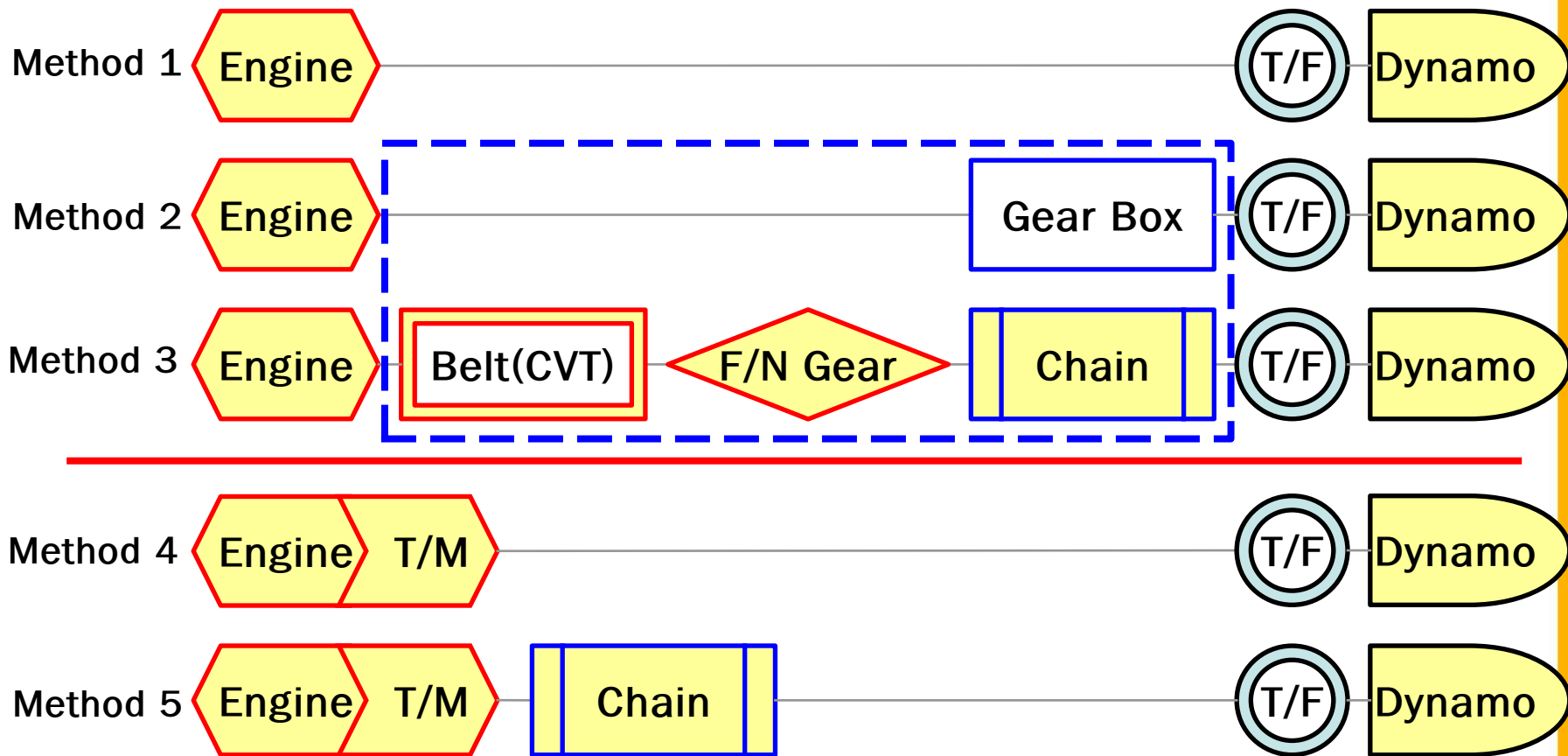
#### ✓ Using a Reduction Gear(Transmission)

- Gear box, CVT belt, Chain, Final Gear etc.



## ➤ Type of Measurement on Max. Power

### ◆ Classification of Measurement on Max. Power in Korea



## ◆ Plan on the schedule of New GTR regarding Max. Power

Year	2018				2019				2020				2021	
Month	1~3	4~6	7~9	10~12	1~3	4~6	7~9	10~12	1~3	4~6	7~9	10~12	1~3	4~6
contents	Sharing and discussion issue items													
	TOR				Formation of T/F									
	Prepare for the test on Max. Power with Gearbox, belt... (in KATRI and ....)				Study on issues with T/F members									
													I.D.-GRPE F.D.-GRPE F.D.-WP29	

## ◆ Position of Korea regarding Max. Power

- ✓ Hope to start discussing and studying to progress Max. Power GTR.
- ✓ Progress with formation of Task Force(T/F) for Max. Power GTR
- ✓ Able to start Max. power and Durability in parallel

## ◆ Study on the issue regarding Max power in Korea

- ✓ Korea launched a research program on the efficiency of each of the components of gearbox, chain etc. used temporarily to measure Max. Power of the engine.

## ◆ Formation of Task Force(T/F) for Max. Power(2019)

- ✓ Temporary and voluntary T/F in order to discuss issue items.
- ✓ Discussion on issue items regarding the regulation and testing method of Max. Power.

## ◆ Sharing and discussion issue items at EPPR meeting and by e-mail

- ✓ Preparation for research and testing on issues
- ✓ Presentation the outcome of T/F works at EPPR meeting

## ◆ Study on issues with T/F members

- ✓ Research and testing each issue and sharing results of study on issues
- ✓ Presentation the outcome of T/F works at EPPR meetings

## ◆ GTR Draft of Max. Power(until 2021)

- ✓ Informal document to GRPE(2020. October)
- ✓ Formal Document to GRPE(2021. January)
- ✓ Formal Document to WP29 (2021. June)



## ➤ Meeting Place

### ◆ Seoul in Korea

- ✓ If you want to, or Due to our circumstances, we can hold the meeting at KATRI later
- ✓ Decide where to hold it until May.

## ➤ Meeting Date

### ◆ Oct. 10 –12

- ✓ Including C.G meeting date
- ✓ Oct. 9 is Korea's national holiday.
- ✓ Consider holding a meeting from Oct. 16 to 18.

## ➤ Host

### ◆ KATRI((Korea Automobile Testing & Research Institute)

- ✓ Contact : Dr. Kang, Jeong Jung / [jejeka@kotsa.or.kr](mailto:jejeka@kotsa.or.kr)