

中国商用车后市场年度大会

离合器专委会

商用车离合器国际市场战略定位 和营销布局及未来发展趋势



分享人：杜平

手机：18868719038（微信同号）

中球传动科技（浙江）有限公司

洞见趋势 顺势谋变 合作共赢

商用车底盘-离合器操纵系统

商用车底盘



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商用车离合器-国际巨头品牌

Valeo

EAT•N

→ 美国伊顿


SACHS

欧洲三大品牌

EXEDY

→ 日本大金

LUK

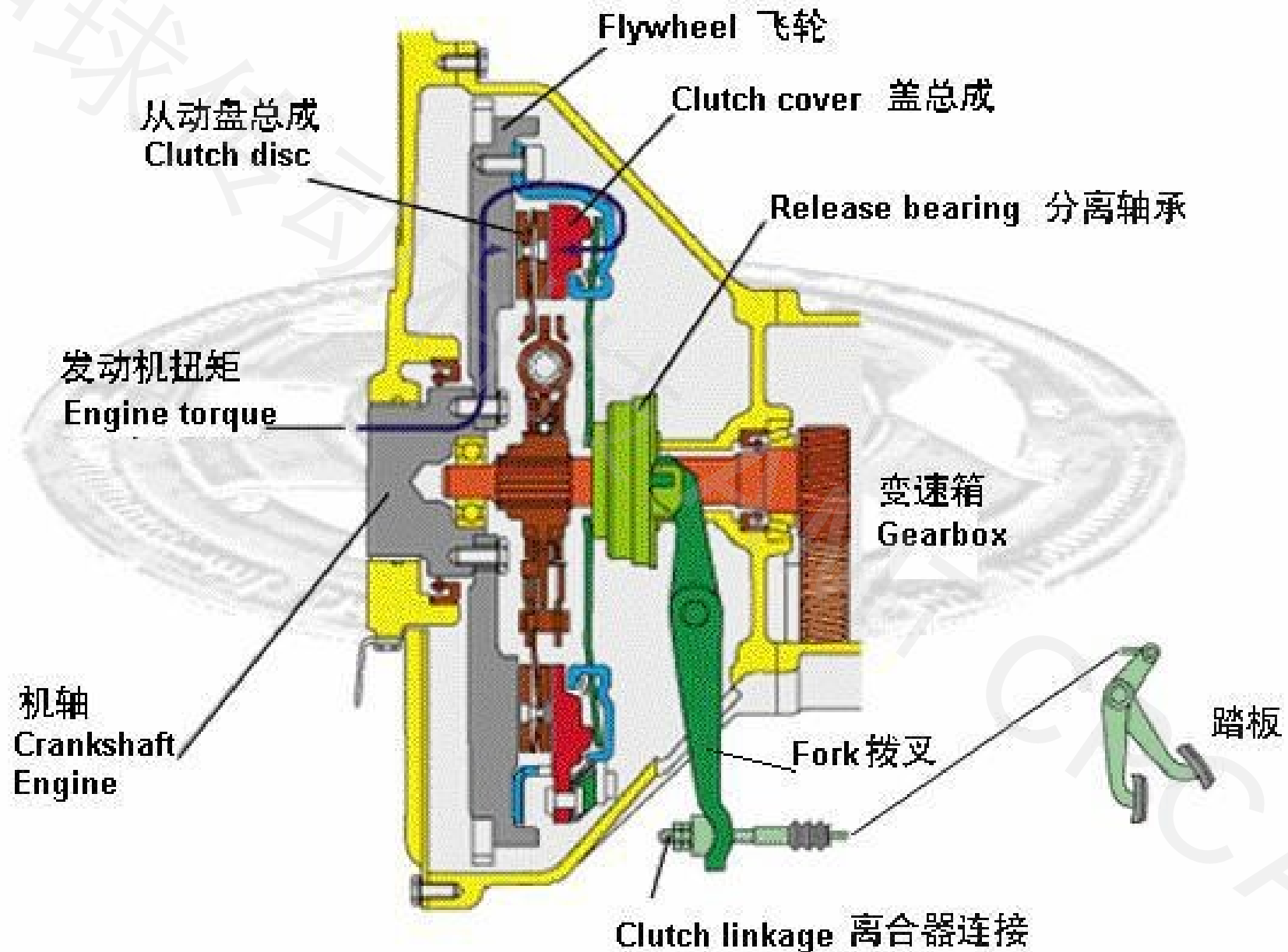
如何做到
知己知彼

?

洞见趋势 顺势谋变 合作共赢

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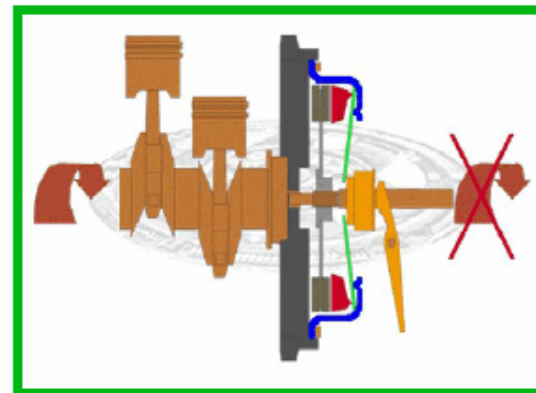
商用车离合器系统结构



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商用车离合器功能

Connect and disconnect engine to gearbox
使发动机和变速箱接合和分离



Disconnect to:
Launch the engine
Prevent the shutdown of engine
Change of gear

分离时:
起动发动机
防止发动机熄火
换档

Connect to
Start the vehicle
Transmit the torque
Insure a smooth engagement

接合:
车辆起步
传递扭矩
确保平稳接合

商用车离合器结构和图示

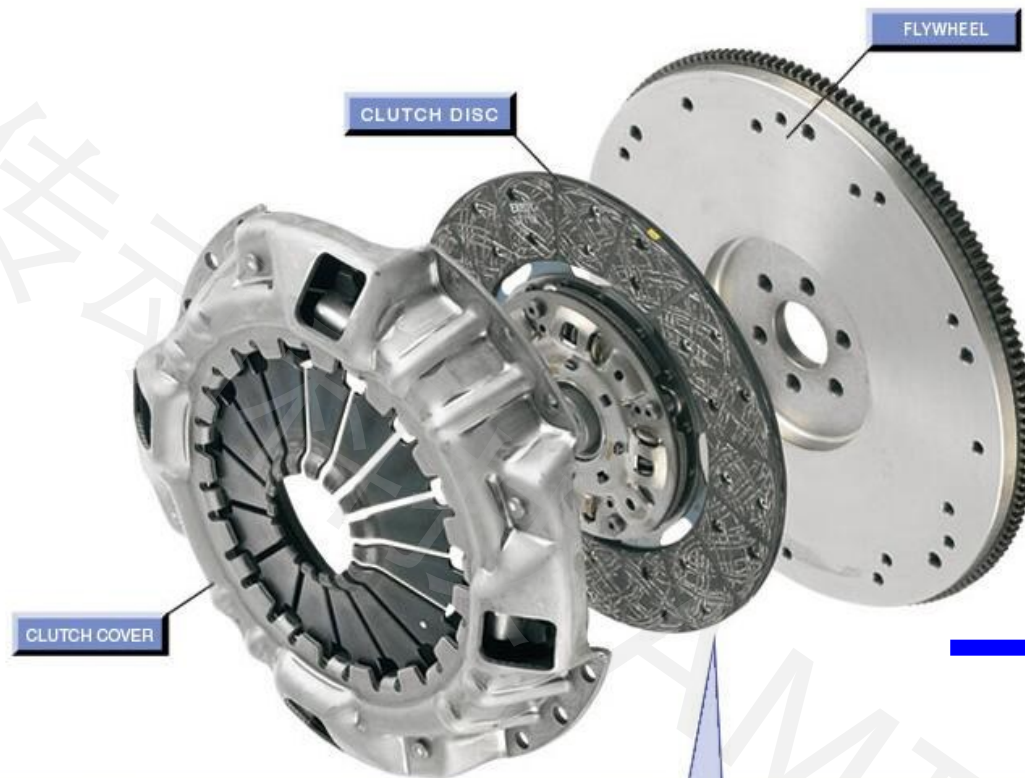


离合器四件套

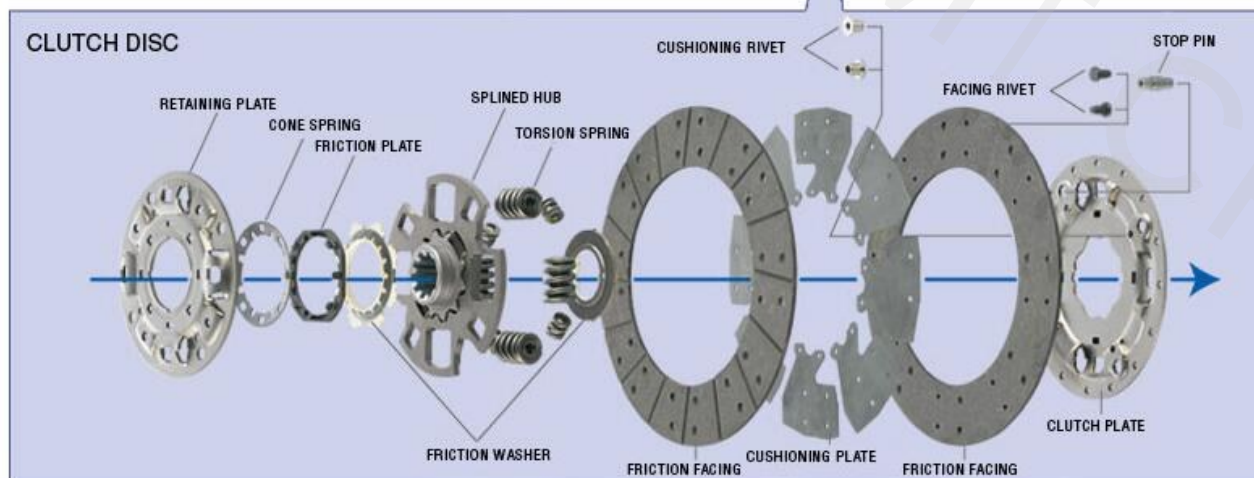
洞见趋势 顺势谋变 合作共赢

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商用车离合器结构和图示

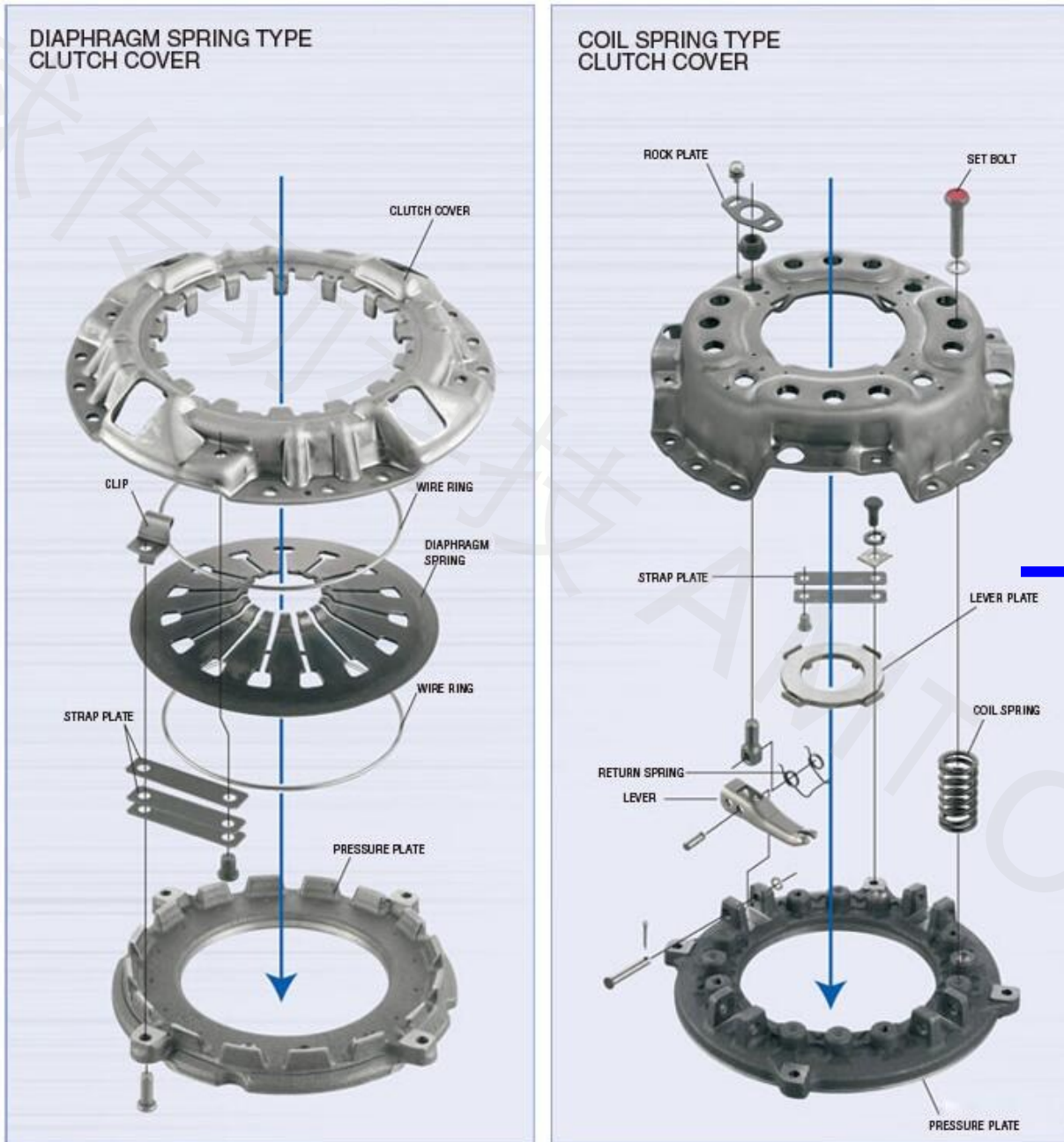


B
O
M
清单



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商用车离合器结构和图示



B
O
M
清单

4 3 0 拉式重要尺寸



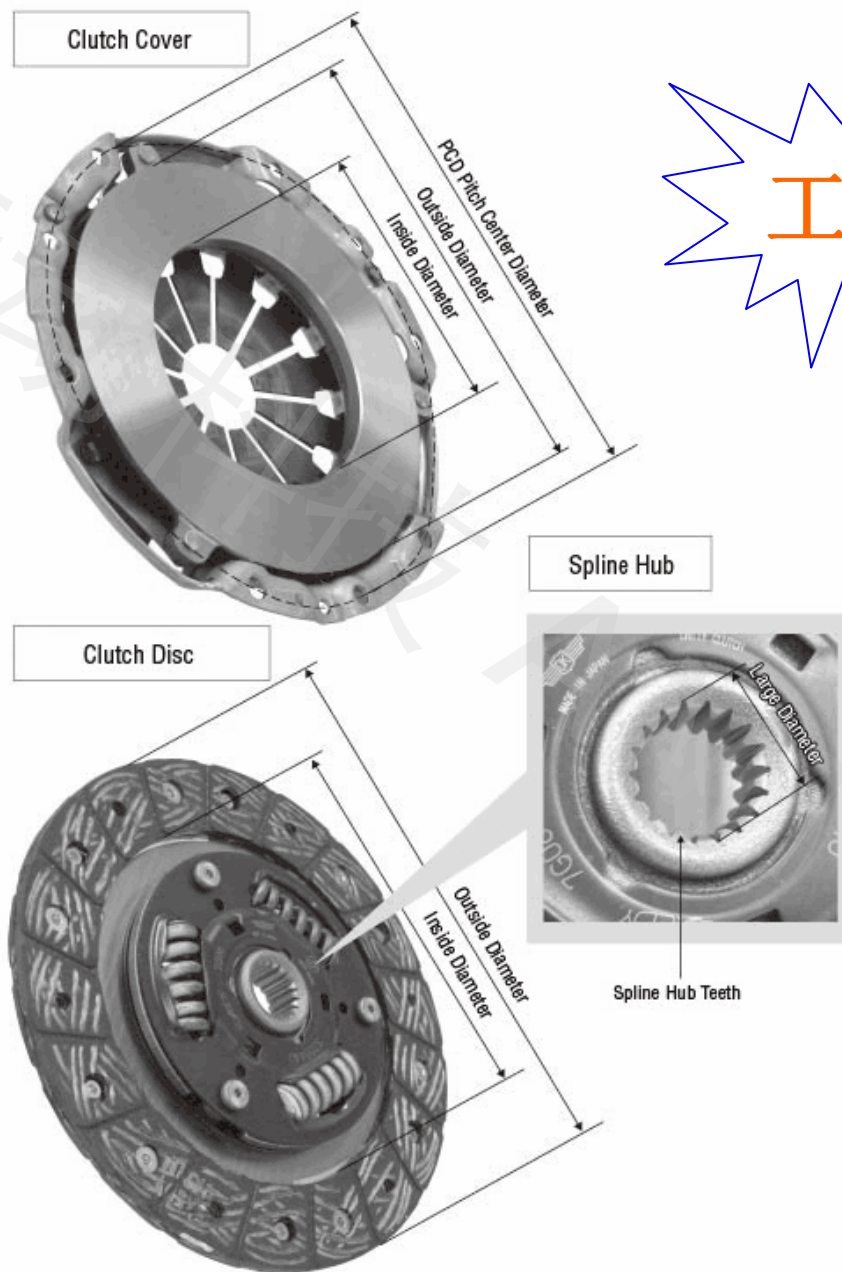
商用车离合器结构和主要尺寸

材料

工艺

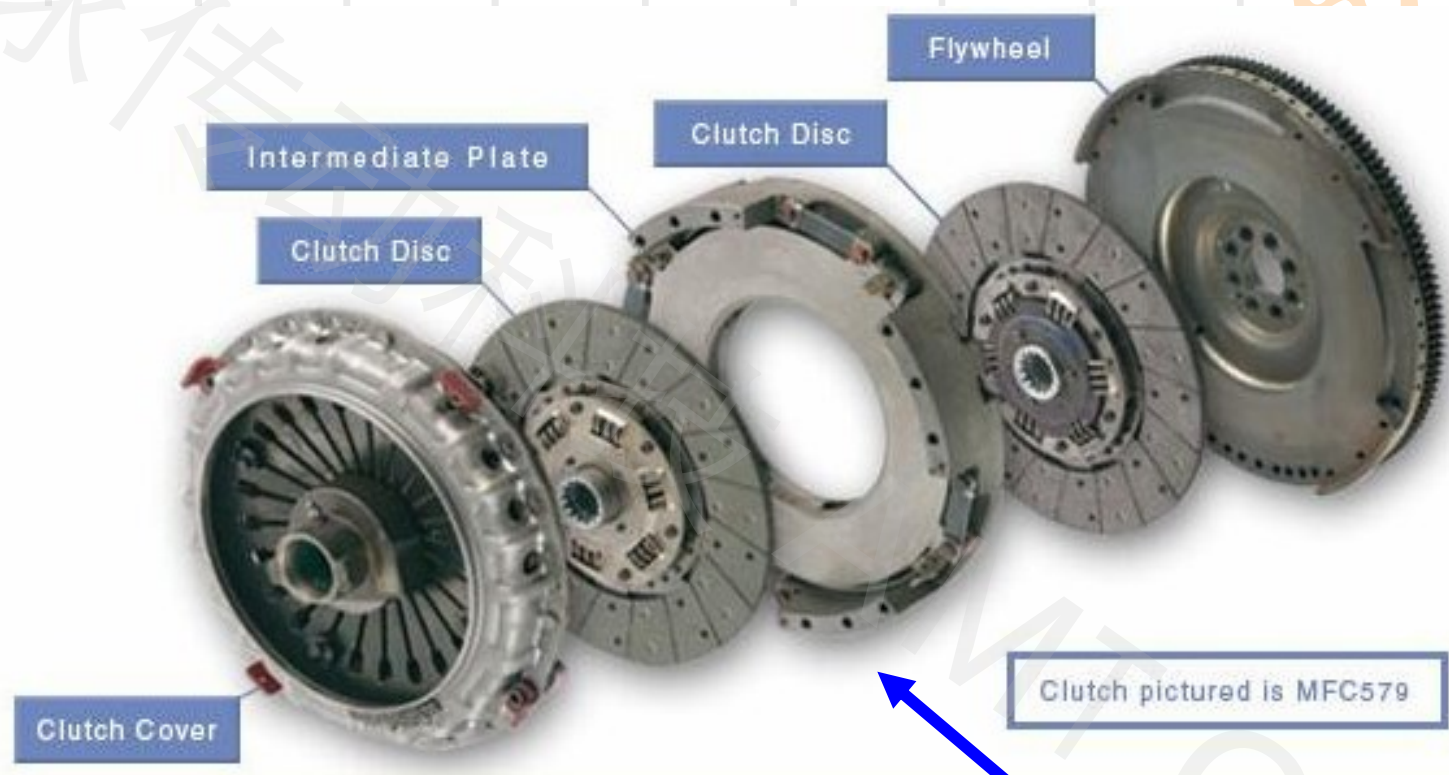
三大关键

质量



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商用车离合器结构和国际品牌



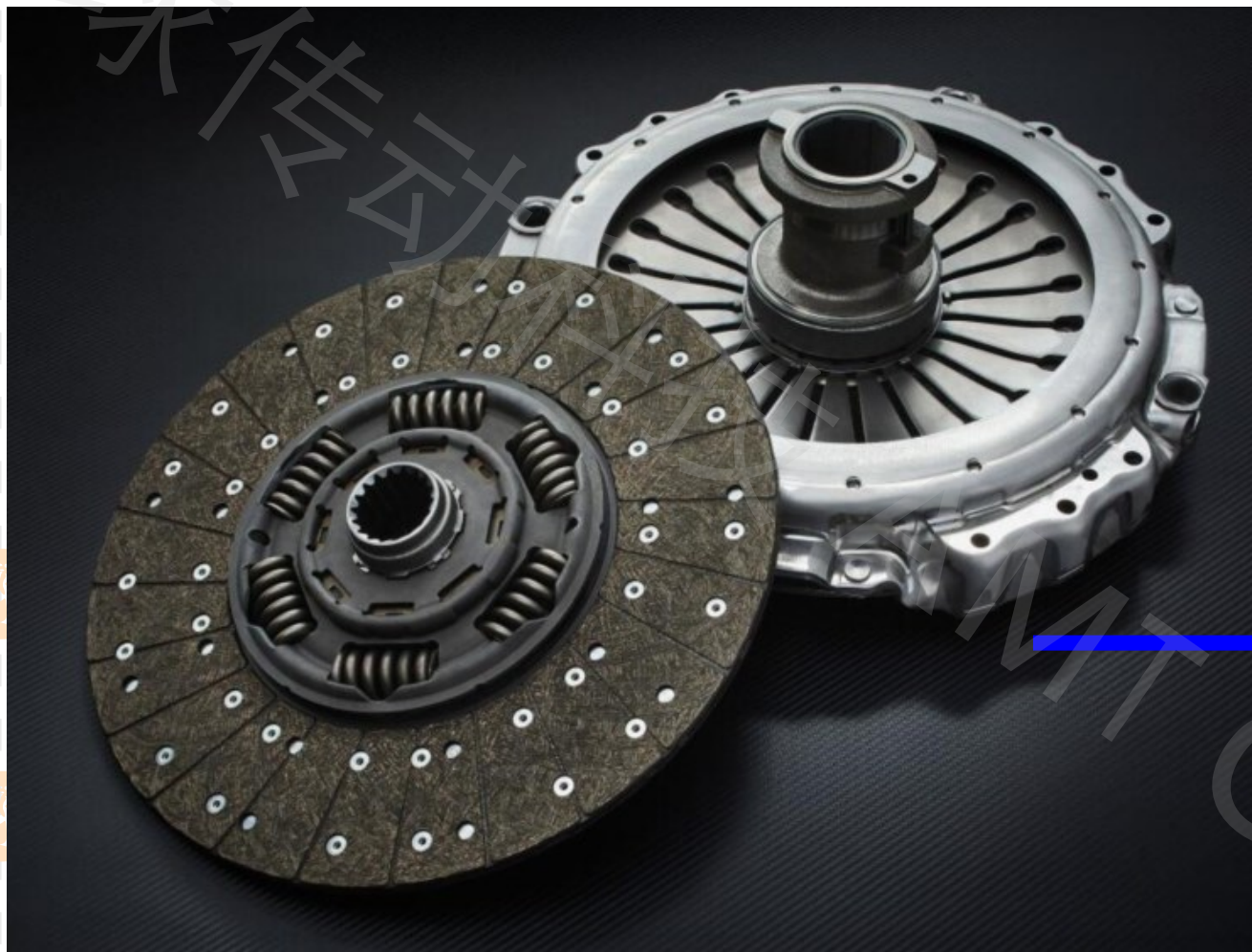
EXEDY

日本拉式结构设计

洞见趋势 顺势谋变 合作共赢

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商用车离合器结构和国际品牌




SACHS

德国
拉式
结构设计

洞见趋势 顺势谋变 合作共赢

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商用车离合器市场流通产品

套件号	压盘号	从动盘号	轴承号	尺寸	齿数	车型
3400 700 415	3483 030 032	1878 002 732	3151 000 155 3100 002 255	430	18	MERCEDES
						
3400 700 615	3483 030 031	1878 002 731	3151 000 155 3100 002 255	430	18	MERCEDES
						

市场
三件套

洞见趋势 顺势谋变 合作共赢



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商用车离合器结构和国际品牌



德国
推式
结构设计

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商用车离合器市场流通产品

套件号	压盘号	从动盘号	轴承号	尺寸	齿数	车型
3400 700 398	3482 000 859	1878 005 601	3151 000 397	362	10	DAF
						
3400 700 473	3482 000 474	1878 005 599	3151 000 651	362	10	DAF
						

市场
三件套

洞见趋势 顺势谋变 合作共赢

轻量化
设计


SACHS

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商用车离合器结构和国际品牌

EATON



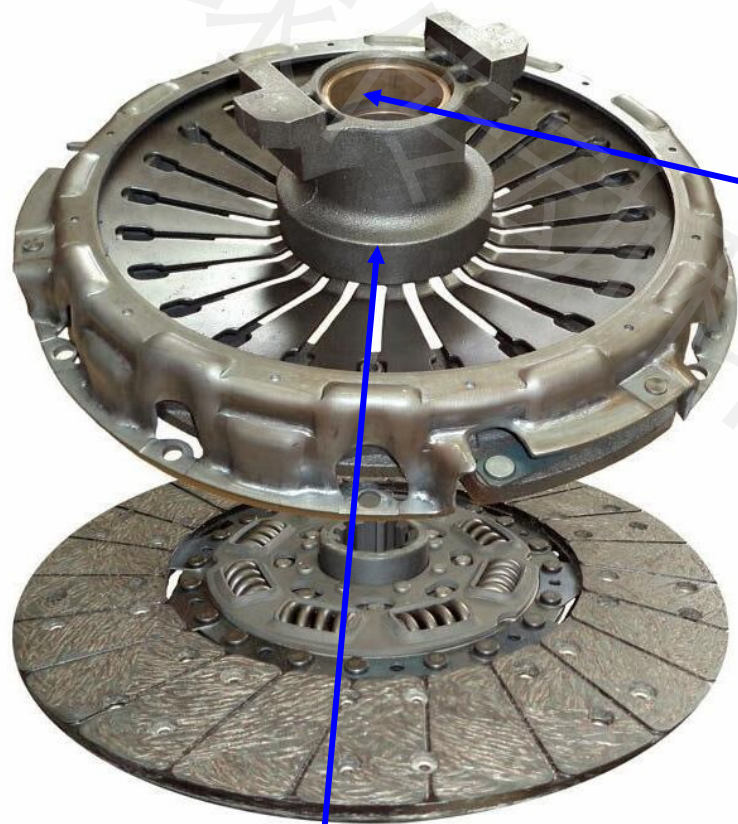
美国
拉式
结构设计

洞见趋势 顺势谋变 合作共赢

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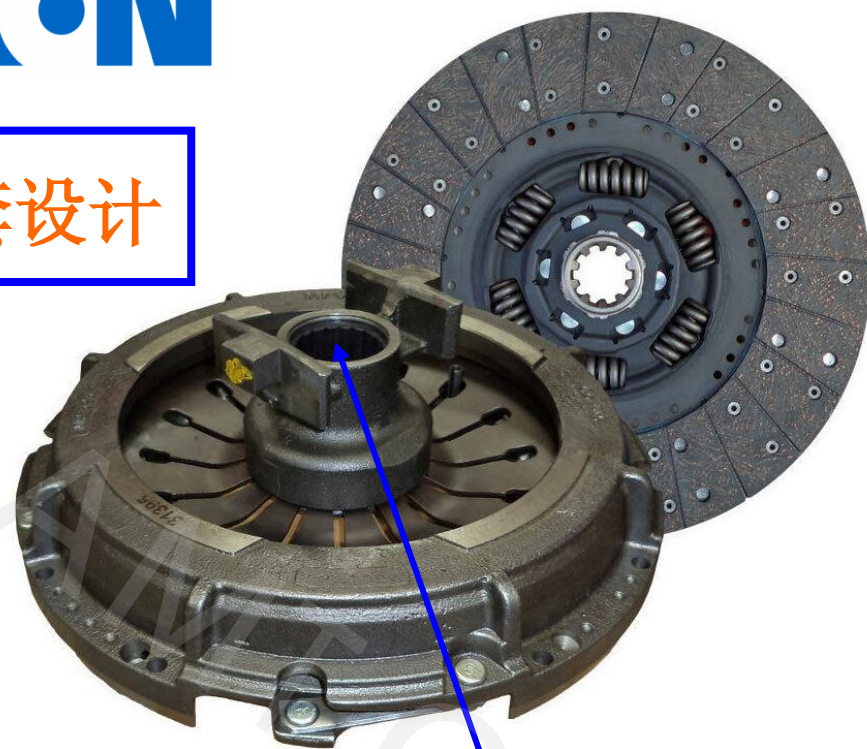
商用车离合器结构和国际品牌

EATON



铜滑套设计

轴承座铸造工艺



塑料滑套设计

美国
拉式
结构代表作

洞见趋势 顺势谋变 合作共赢

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商用车离合器市场流通产品

tianzhi USA TRUCK CLUTCH KIT 2020

C/NO	Clutch Kit No	Clutch cover	Clutch disc	Clutch disc	Clutch disc	Models
1	108925-25AM	108925-25AM		NA		MACK
				NA	380 10	
2	M108935-15	157700-6	113C166	128709	128709	MACK
						

市场
套件

洞见趋势 顺势谋变 合作共赢

EATON

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商用车离合器结构和国际品牌



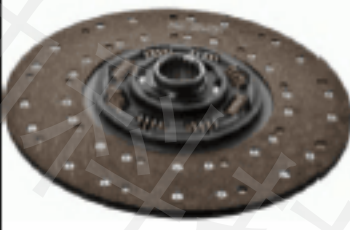
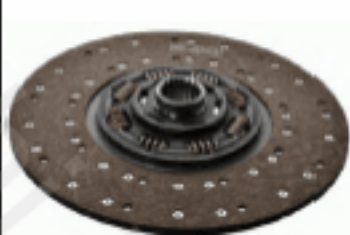
外壳包边设计

法国
拉式
结构设计

洞见趋势 顺势谋变 合作共赢

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商用车离合器市场流通产品

套件号	压盘号	从动盘号	轴承号	尺寸	齿数	车型
3400 117 101	3482 123 243 	1878 020 241 	3100 008 204 3151 234 231 	430	20	RENAULT TRUCKS
3400 117 201	3482 083 044 	1878 020 241 	3100 008 204 3151 234 231 	430	20	RENAULT TRUCKS

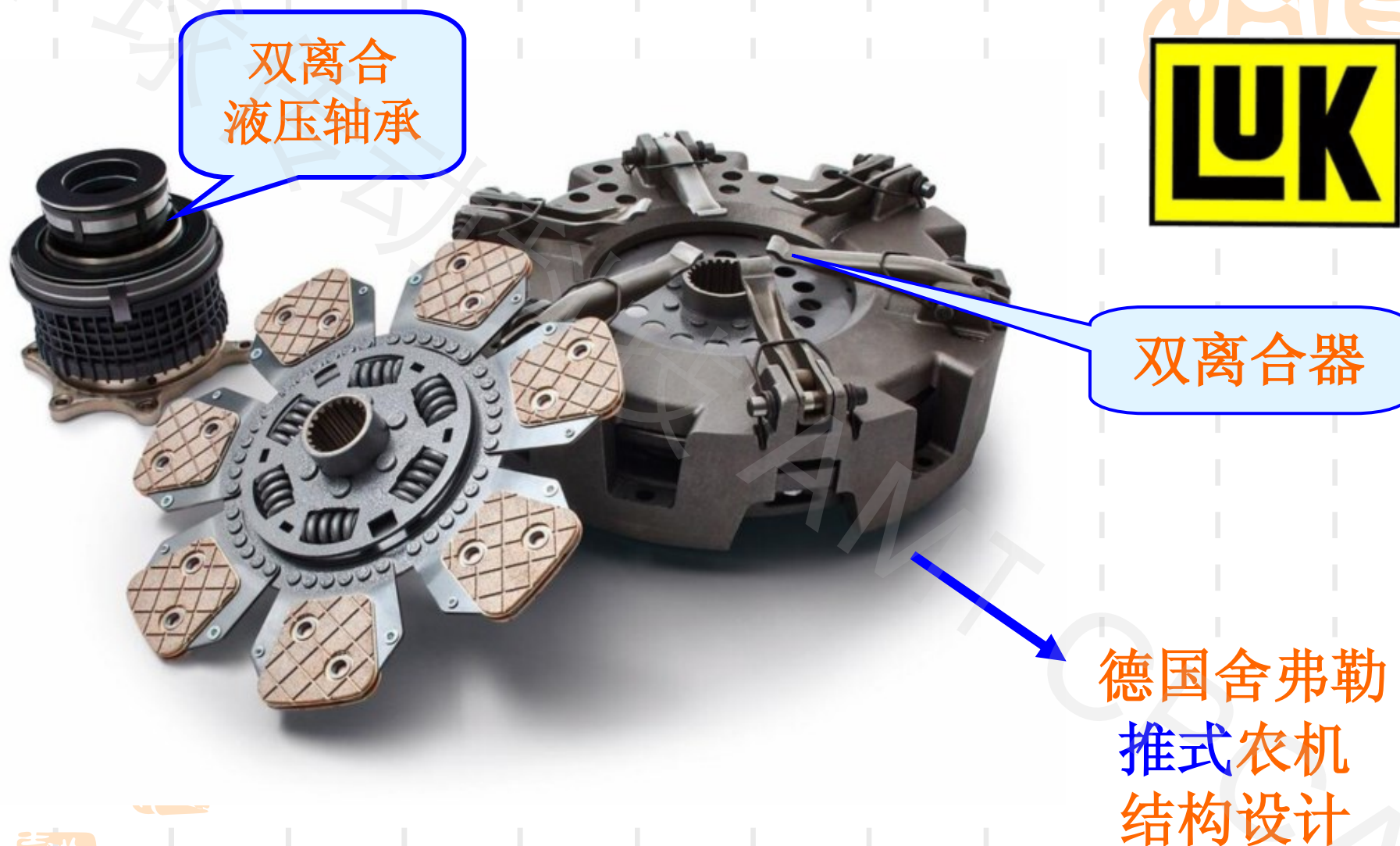
市场
套件

洞见趋势 顺势谋变 合作共赢



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商用车离合器结构和国际品牌



洞见趋势 顺势谋变 合作共赢

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农机离合器市场流通产品



套件号	压盘号	从动盘号	轴承号	尺寸	齿数	车型
3800 710 002	1888 067 031	1861 741 042	3182 003 131	330	20	MERCEDES-BENZ
						
3800 710 003	1888 998 902	1862 962 002	3182 003 131	350	20	MERCEDES-BENZ
						

市场
套件

洞见趋势 顺势谋变 合作共赢

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商用车离合器结构和国际品牌

拉式
液压轴承



德国舍弗勒
拉式
结构设计

洞见趋势 顺势谋变 合作共赢

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商用车离合器市场流通产品

套件号	压盘号	从动盘号	轴承号	尺寸	齿数	车型
3400 710 004	3482 083 150	1878 003 066 1878 063 231	3182 009 938	430	24	SCANIA
						
3400 700 323	3482 112 031	1878 043 231	3181 009 938 3180 007 000	400	24	SCANIA
						

市场
三件套

洞见趋势 顺势谋变 合作共赢

拉式
液压轴承
三件套

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商用车离合器结构和国际品牌



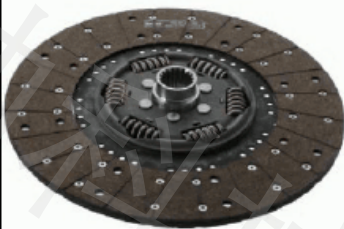
德国ZF
AMT
最新技术

推式
液压轴承
三件套

洞见趋势 顺势谋变 合作共赢

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商用车离合器市场流通产品

套件号	压盘号	从动盘号	轴承号	尺寸	齿数	车型
3400 710 014	3482 000 463	1878 023 831	3182 600 166	395	18	MERCEDES
						
3400 710 015	3482 000 464	1878 023 931	3182 600 166	395	18	MERCEDES
						

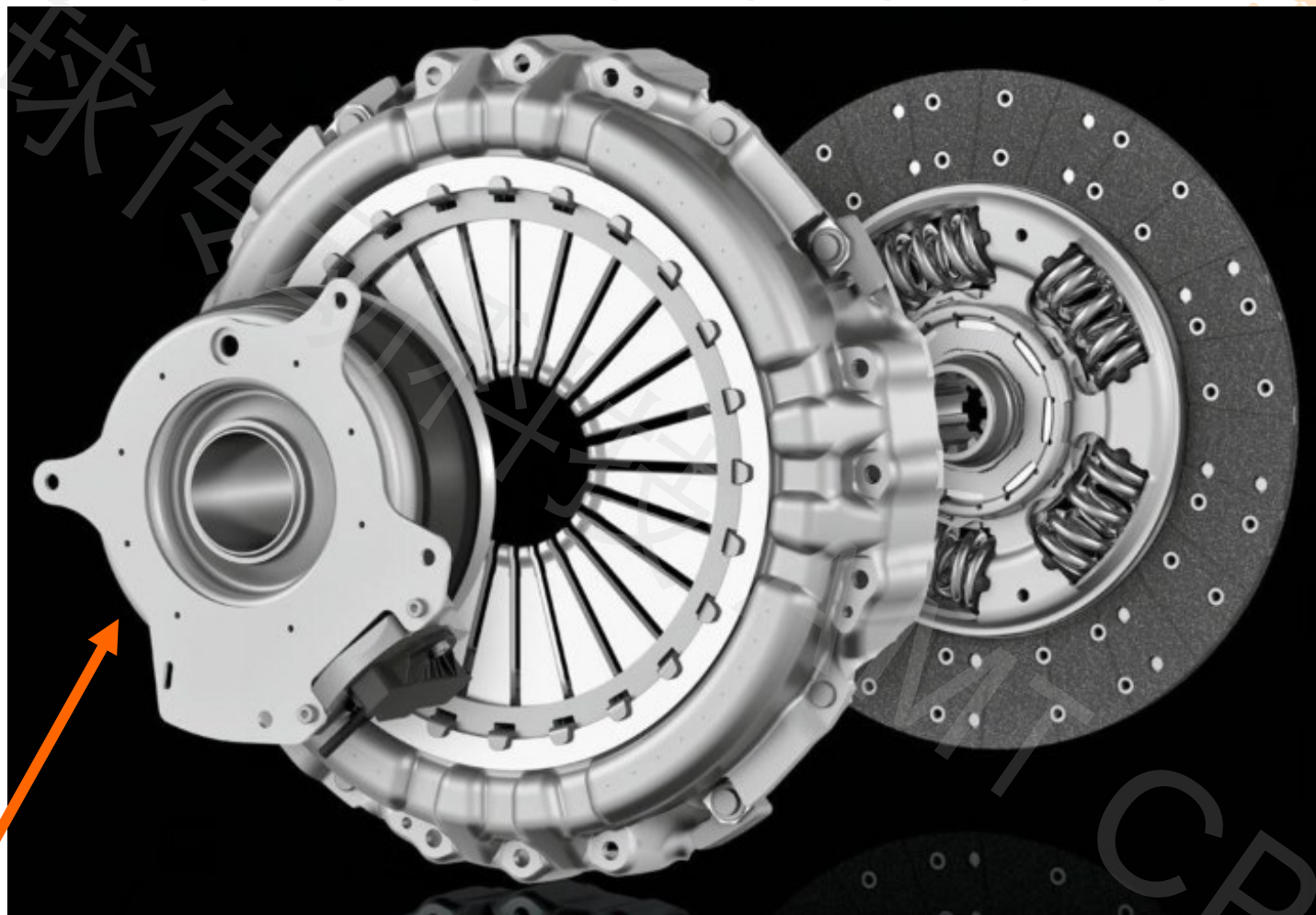
市场
三件套

洞见趋势 顺势谋变 合作共赢

推式
液压轴承
三件套

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商用车离合器结构和国际品牌



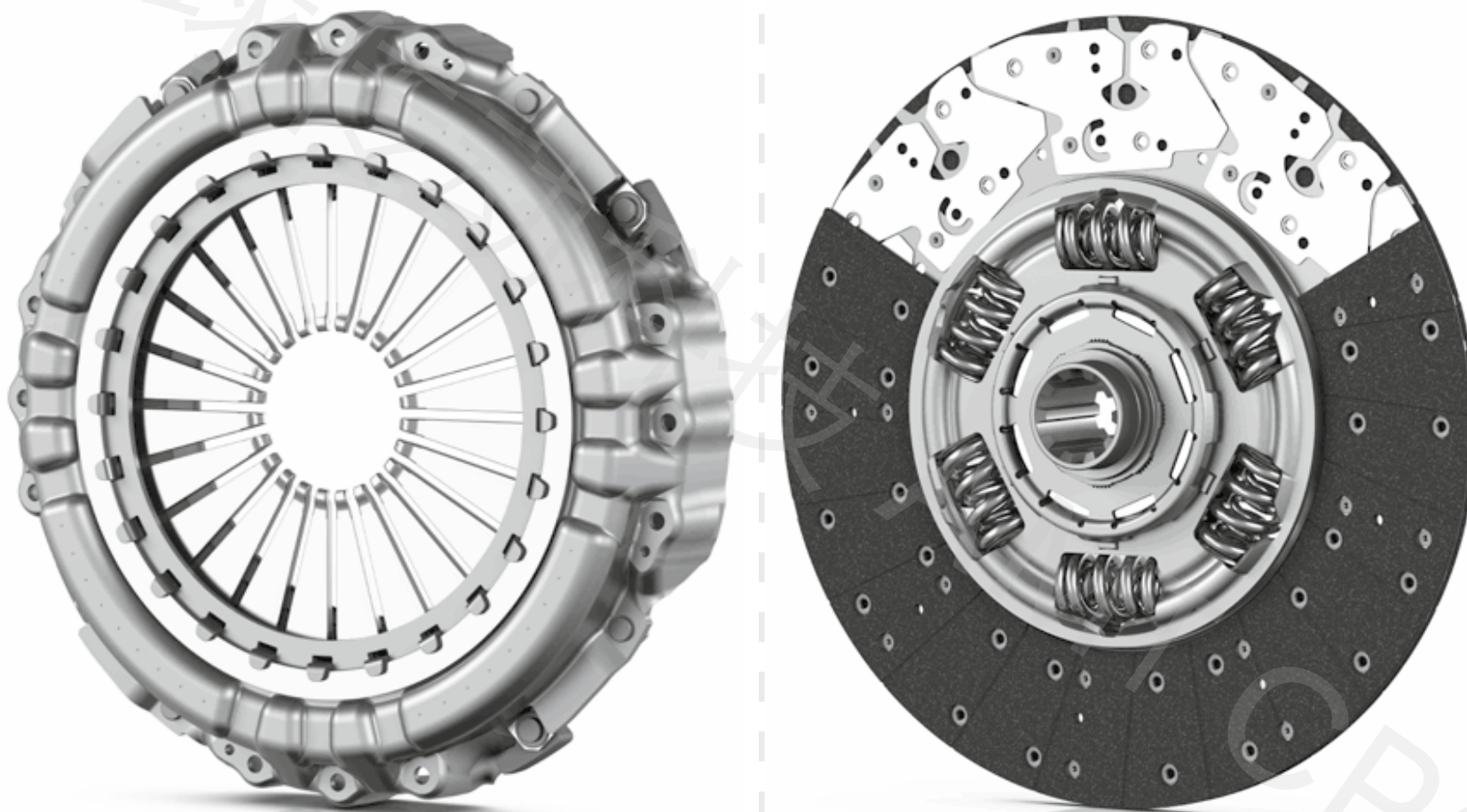
英文品名: pneumatic clutch actuation cylinder

气动离合器工作缸

洞见趋势 顺势谋变 合作共赢

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商用车离合器结构和国际品牌



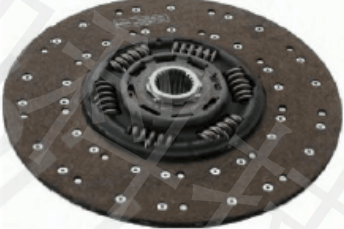
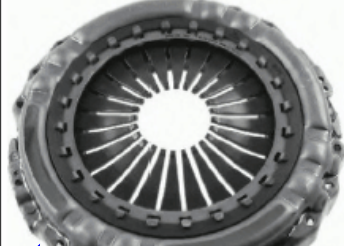
ZF气动离合器设计结构

洞见趋势 顺势谋变 合作共赢

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商用车离合器市场流通产品

套件号	压盘号	从动盘号	轴承号	尺寸	齿数	车型
3400 700 358	3482 000 552	1878 003 867	6482 000 155		430	24
						
3400 700 359	3482 000 553	1878 006 129	6482 000 155		430	24
						

市场
三件套

洞见趋势 顺势谋变 合作共赢

推式
气动轴承
三件套

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国际市场战略-定位

§

什么是战略？

§

战略是从你现在的位置，到达你想去的位置的一张地图。

§

从这个定义中，可以知道，好的战略，必须能回答下面几个问题：

1.

了解我们现在所处的位置、现在所面临的问题？

2.

在前进的过程中，我们会遭遇的敌人是谁？如何对付、如何打败他们？

3.

我们已经想好了，这个目标就是我们想要的？

4.

我们做好了准备，面对前进中的诱惑，可以坚定不移的说：不。

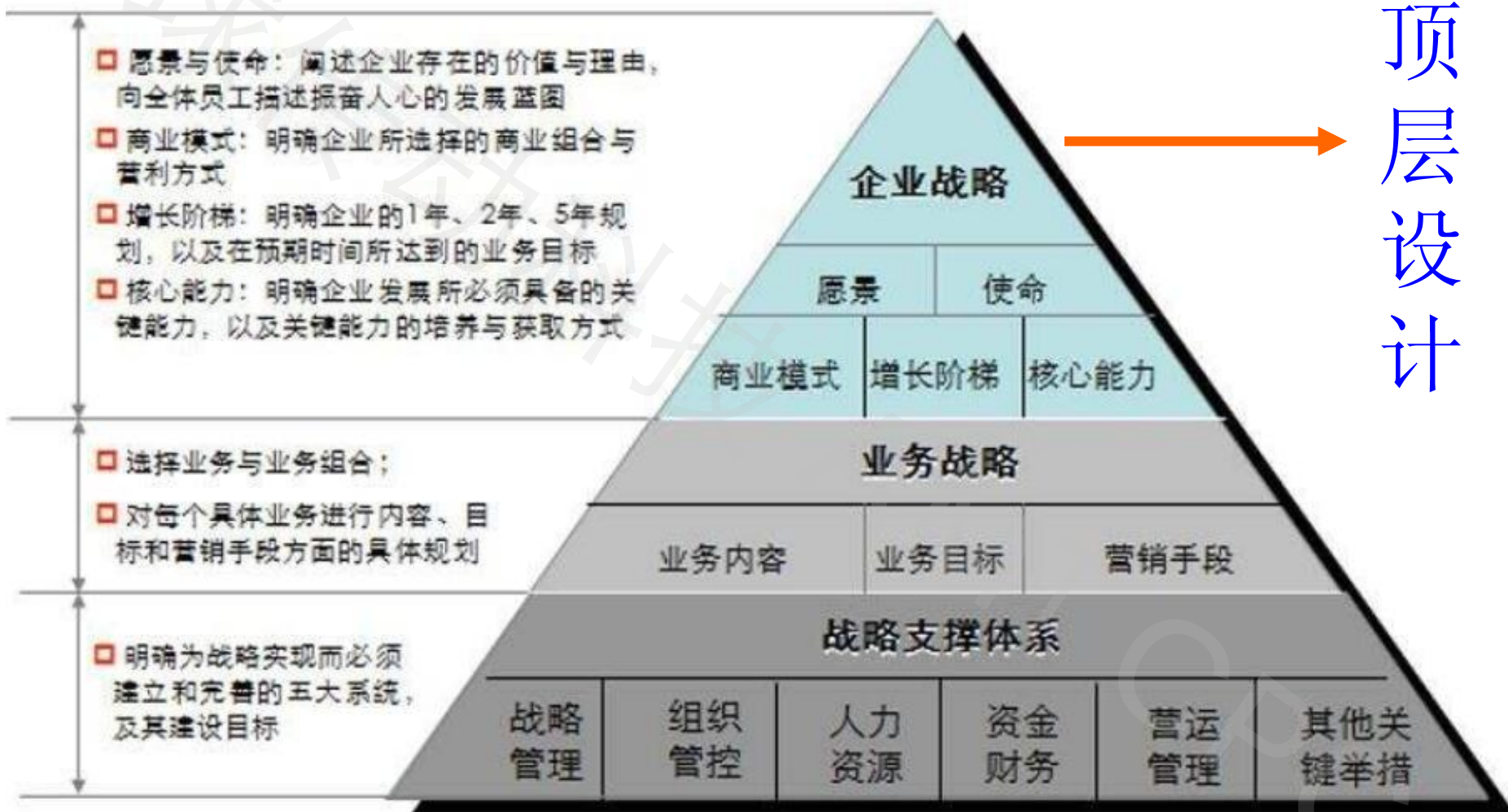
洞见趋势 顺势谋变 合作共赢

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企业战略



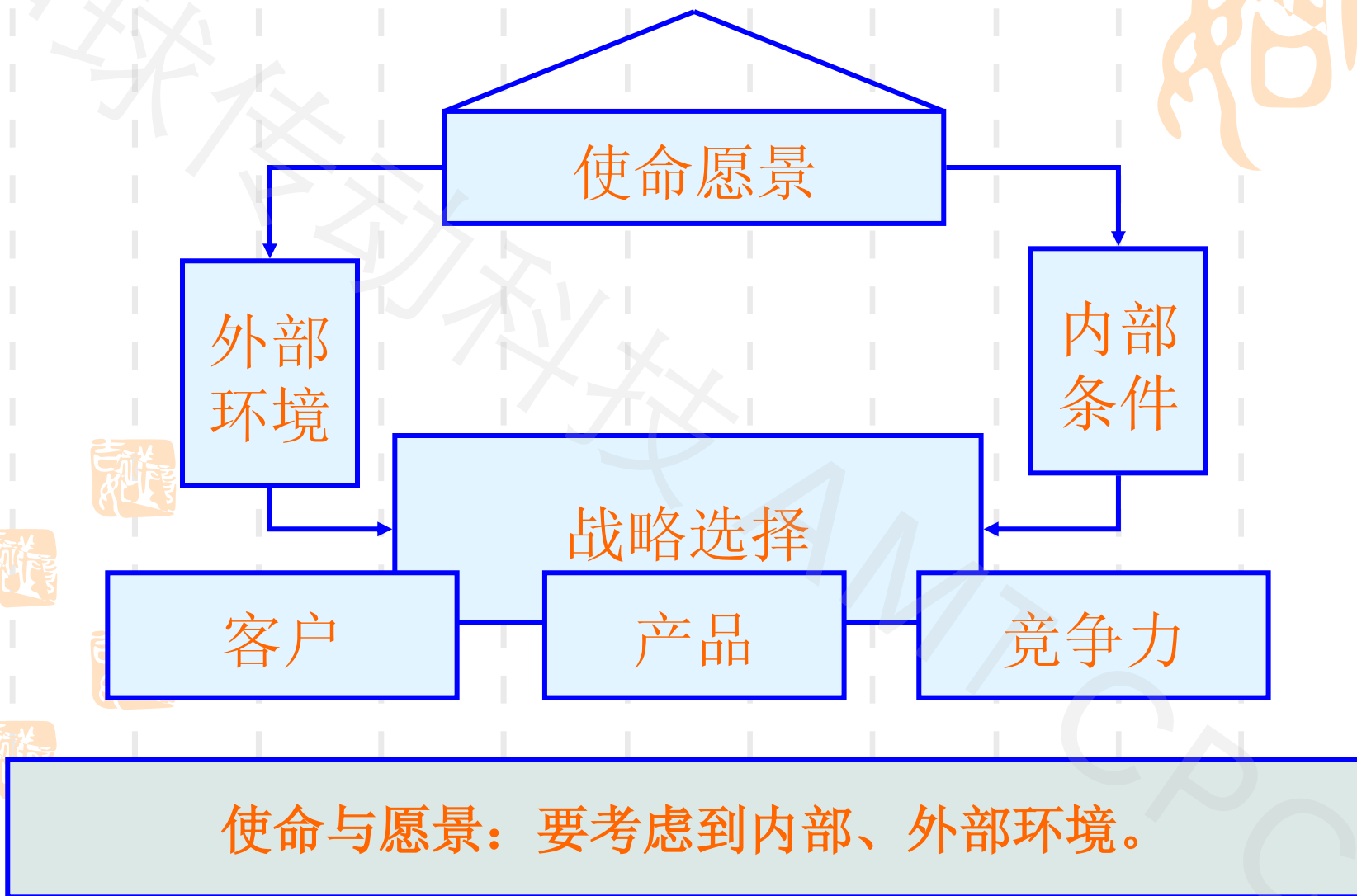
顶层设计



洞见趋势 顺势谋变 合作共赢

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国际市场战略-定位



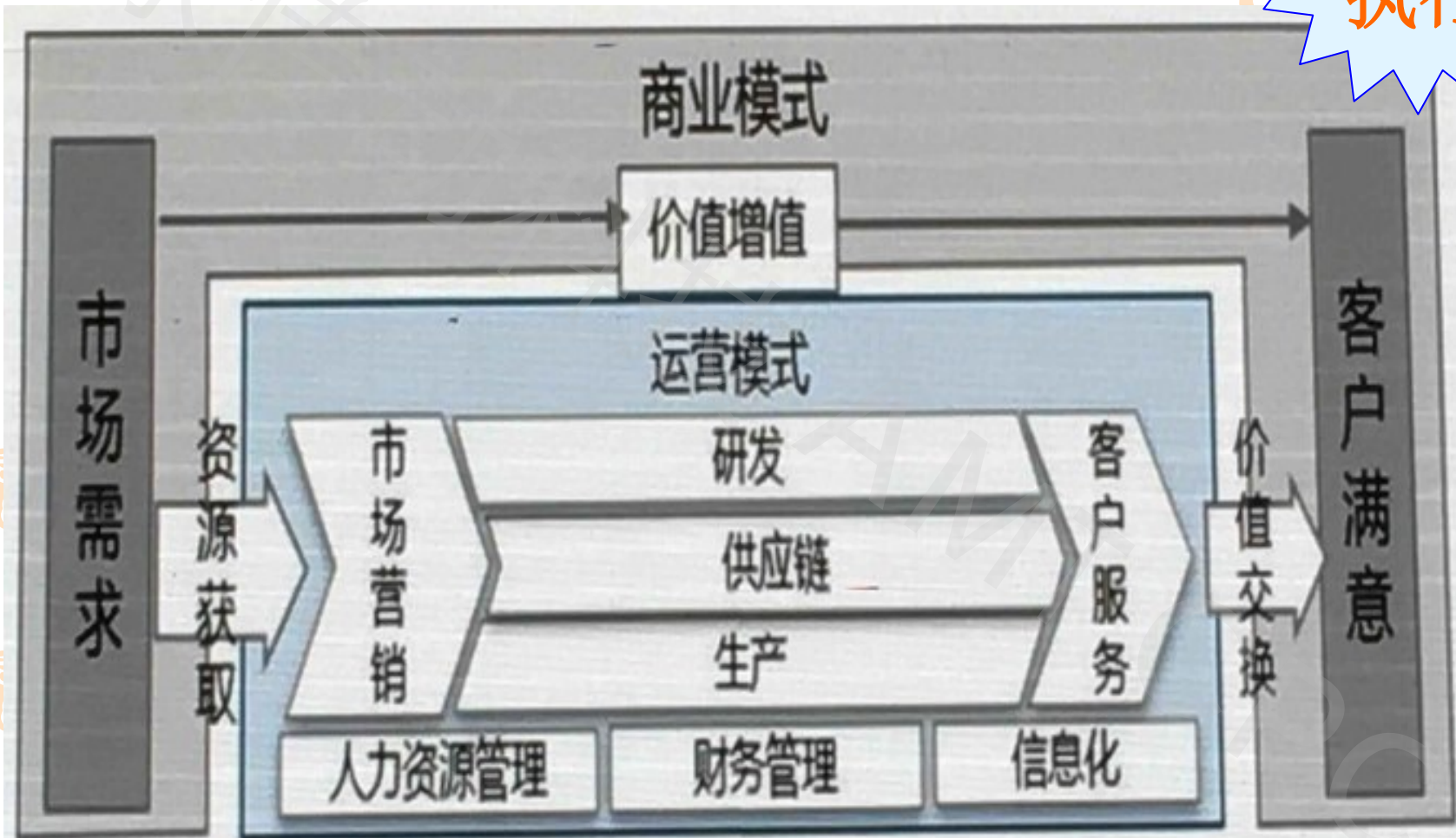
洞见趋势 顺势谋变 合作共赢

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设定公司-价值增值部门

§ 营销部门、生产部门、技术部门

赢在执行



洞见趋势 顺势谋变 合作共赢

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战略-定位全球化

§ 浙江铁流：战略 向世界级供应商迈进

S 配套产业
PARE PARTS AND COMPONENTS /

浙江铁流： 向世界级供应商迈进

“未来30年，我们要努力推动铁流的国际化，打造国际化的团队和国际化的管理经验，同时寻找国际资本合作和并购，推动铁流的国际化，成为全球化的品牌。”

○ 本刊记者 | 王作福 | 文/图

Nothing Can Stop the Flowing of Molten Iron

Zhejiang Tieliu Clutch Co., Ltd. has been engaged in research and development of clutch product for 30 years, and now has a capacity of annual production of over 4 million sets, among which its model of 1,500+ serve for 90% of passenger and commercial vehicles. Recently, reporter of <Commercial Vehicle> magazine conducted a thorough research of the company and learned the first hand information of its breakthrough in clutch technologies and achievement in the industry in the past 30 years.



浙江铁流离合器股份有限公司总经理宁国

在2015年7月10日举办的“2015中国离合器发展趋势和战略高峰论坛”上，浙江铁流离合器股份有限公司在现场展示了一系列应用于乘用车及商用车的离合器产品。这些产品均为铁

铁流已经拥有30年专注离合器研发和制造的经验，具备400多万套离合器的生产能力，超过1500种型号的产品覆盖全球90%以上的乘用车和商用车。2015年5月6日，铁流第1亿套离合器顺利下线。

在30多年的发展过程中，铁流在产品上紧跟市场需求，不断推陈出新。近几年，整车舒适性要求的提高，要求传动系统更为高效、稳定，操作更为简便。对此，铁流针对高端用户推出了自调节离合器、双质量飞轮、液力变矩器、液力扭转减振器等创新产品。同时，针对新能源汽车的发展，铁流还推出了油-电双模车用新型双减振离合器、油-电混合动力车用离合器分离轴承总成等适用于新能源领域的产品。

“铁流是目前国内规模最大的离合器生产企业，出口量也位居全国第一。”采访时，宁国骄傲地表示。他还告诉记者，目前铁流主要有3大市场——国内配套市场、国内售后市场和海外市场，3大品牌——铁流、德萨DELSAH和西湖WESLAKE。其中，德萨DELSAH是铁流最新推出的针对中高端市场的品牌。

“离合器用户的需求在发生剧烈变化，要求产品品质更高、使用更舒适。而目前国内离合器厂家由于研发创新不足，制造能力较弱，只能满足用户的基本需求，所以在离合器中高端市场，有广泛的发展空间。”宁国表示，“铁

铁流主要有
3大市场

国内配套市场

国内售后市场

海外市场

3大品牌

铁流

德萨DELSAH

西湖WESLAKE

其中，德萨DELSAH
是铁流最新推出的
针对中高端市场的品牌

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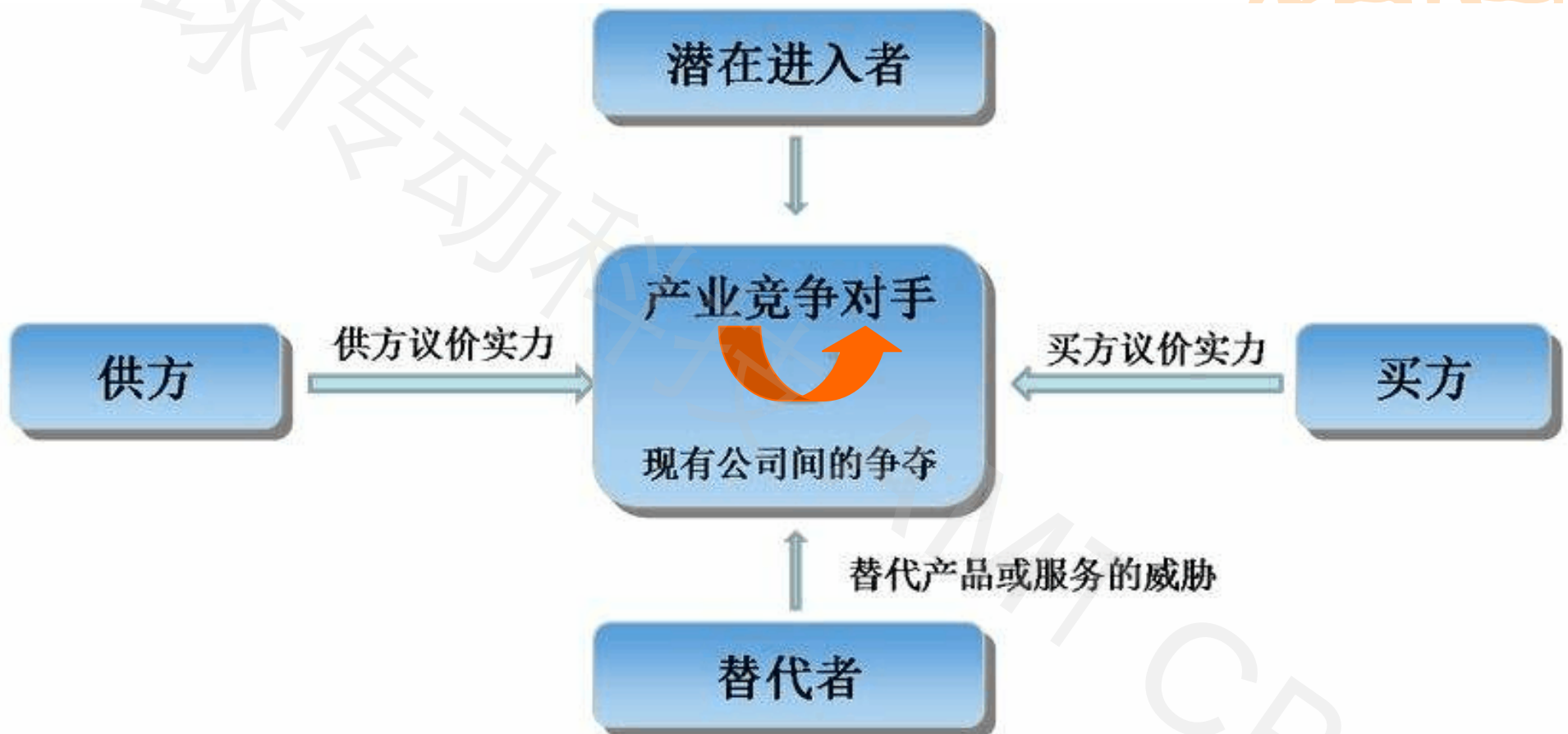
波特五力模型



洞见趋势 顺势谋变 合作共赢

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波特五力模型



洞见趋势 顺势谋变 合作共赢

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战略选择

- § 基于波特五力模型，他在书中，给出了三种通用战略。
- § 第一：低成本战略，12字真经：控制成本、降低费用、提高效率；
- § 第二：差异化战略，即让你的产品更独特，从而获得更高价格（服务、品质、技术）
- § 第三：市场专注战略，即选择一个利基市场，形成垄断，比如德国的隐形冠军。
- § 波特先生认为：没有从这三种战略中选择一个的公司，处于最差战略环境。

洞见趋势 顺势谋变 合作共赢

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营销布局

- 全球化布局
- 北美、南美市场
- 欧洲市场
- 非洲市场
- 中东、东南亚市场
- 国内市场

五大市场

不能为了单一市场
而放弃了全球市场

洞见趋势 顺势谋变 合作共赢

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营销布局

§ 线上、线下**两手抓**

§ 线上：建立独立站官网，利用互联网平台做营销和引流；B2B+B2C

§ GOOGLE TWITTER FACEE OK LINKEDIN YOUTUBE

§ 线下：展会营销，全球巡回**参展**；**海外仓**、**客户拜访**。**代理/经销商**渠道建设。

打组
合拳

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网络营销工具-电脑端



← 搜索引擎 SEO



← 关键词广告



← B2B



} B2C

社交媒体



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网络营销工具-手机端APP



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顺应时代变化-跟上时代步伐

起来！醒醒！时代变了！喬峰：用手槍殺人，真的比用降龍18掌殺人爽。



时代变了，大人

借鉴
用直播思维
做业务

天下武功
唯快不破

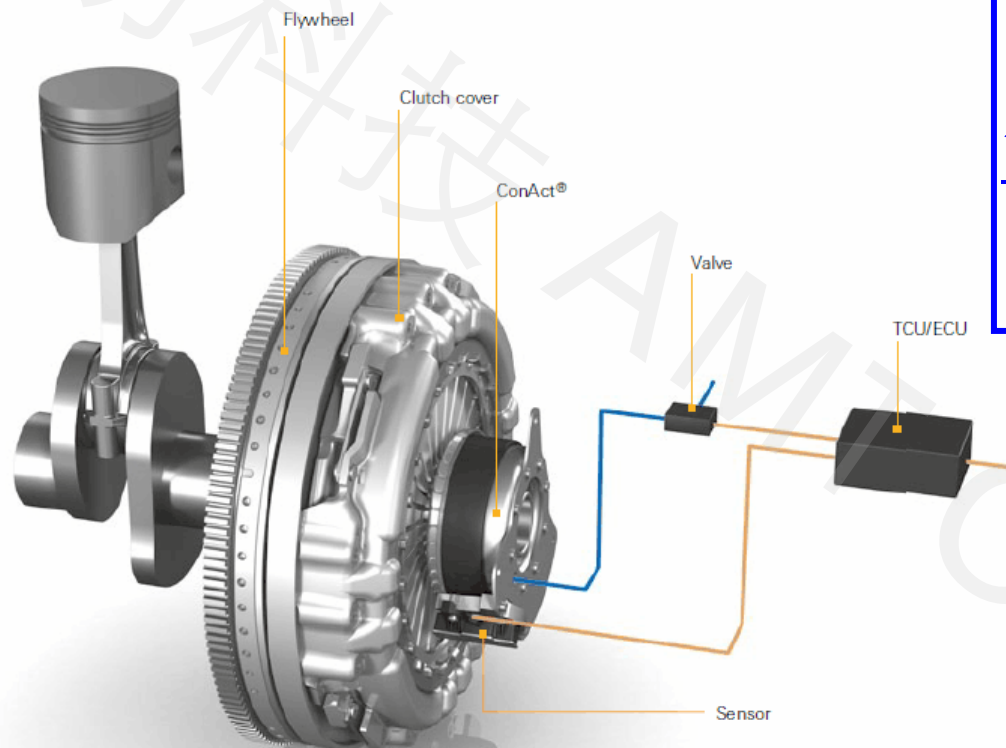
洞见趋势 顺势谋变 合作共赢

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商用车离合器未来发展趋势

- § 盯紧国际巨头的新技术新产品的应用
- § 新技术新产品新车标配下线就代表未来走向

ConAct® SYSTEM DESIGN



德国ZF最新
ATM变速箱
气动分离技术
应用

商用车离合器 新技术应用



橡胶气囊

活塞

外壳底座

位移传感器

分离轴承

德国ZF最新
ATM变速箱
应用的新技术
气动分离执行器

洞见趋势 顺势谋变 合作共赢

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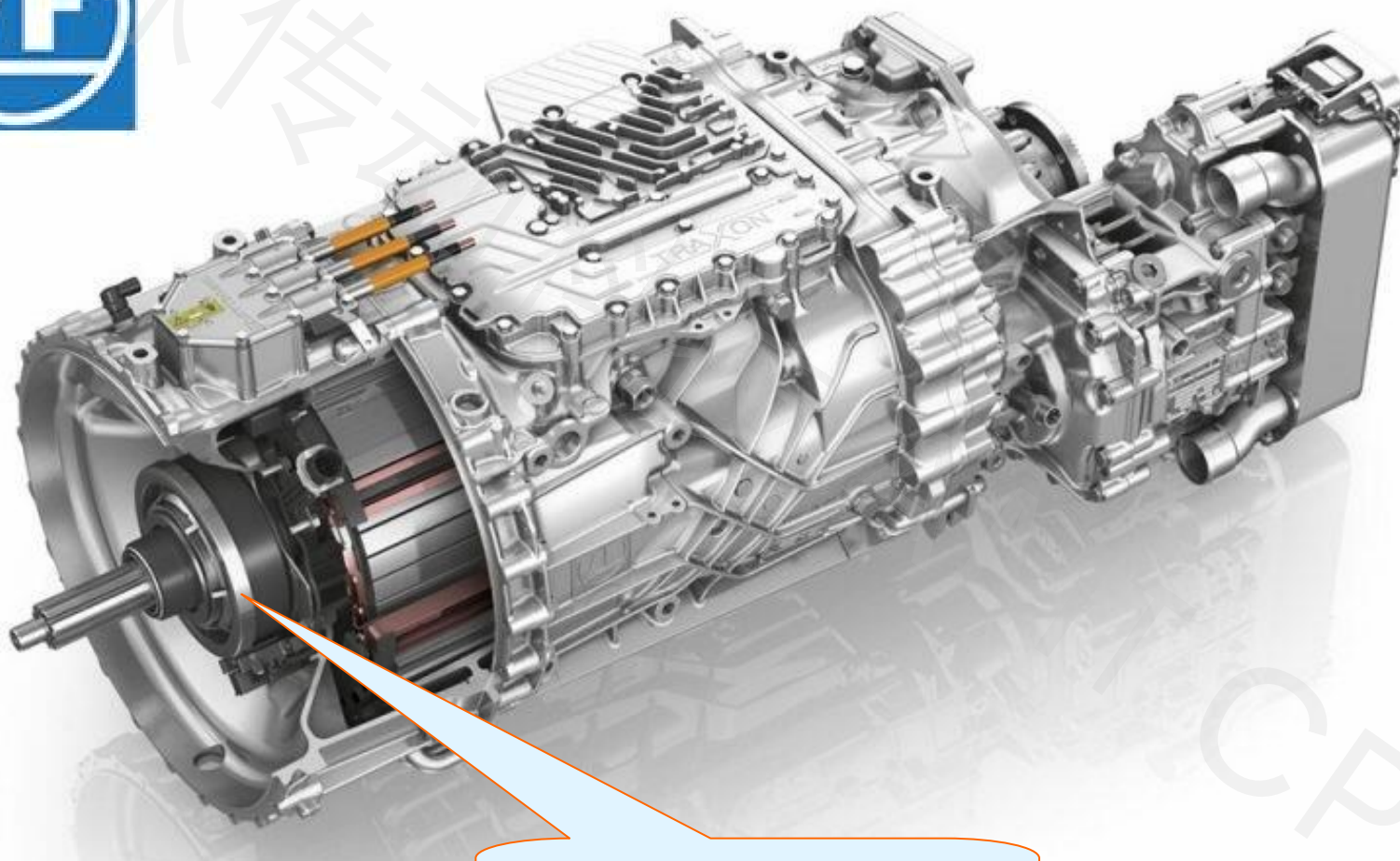
商用车离合器 新技术应用



德国ZF
AMT推式气动分离
最新技术

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商用车离合器未来发展趋势



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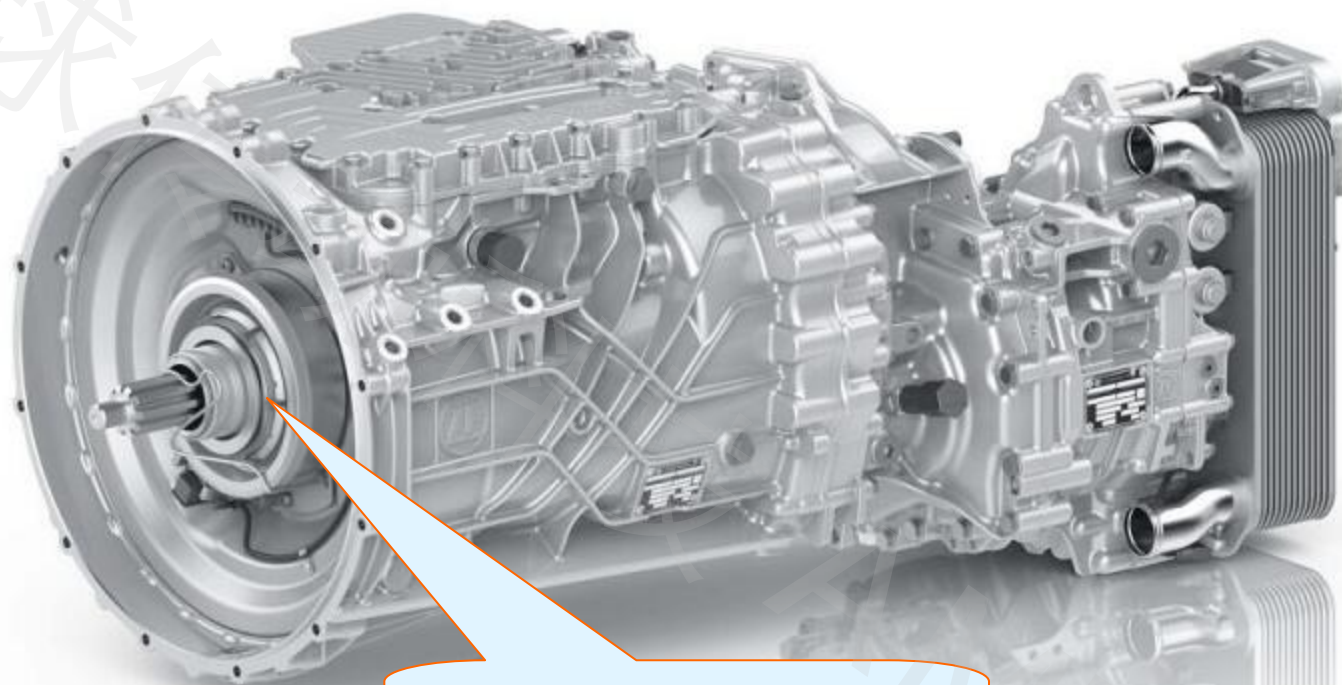
气动分离执行器

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商用车离合器未来发展趋势



气动分离执行器

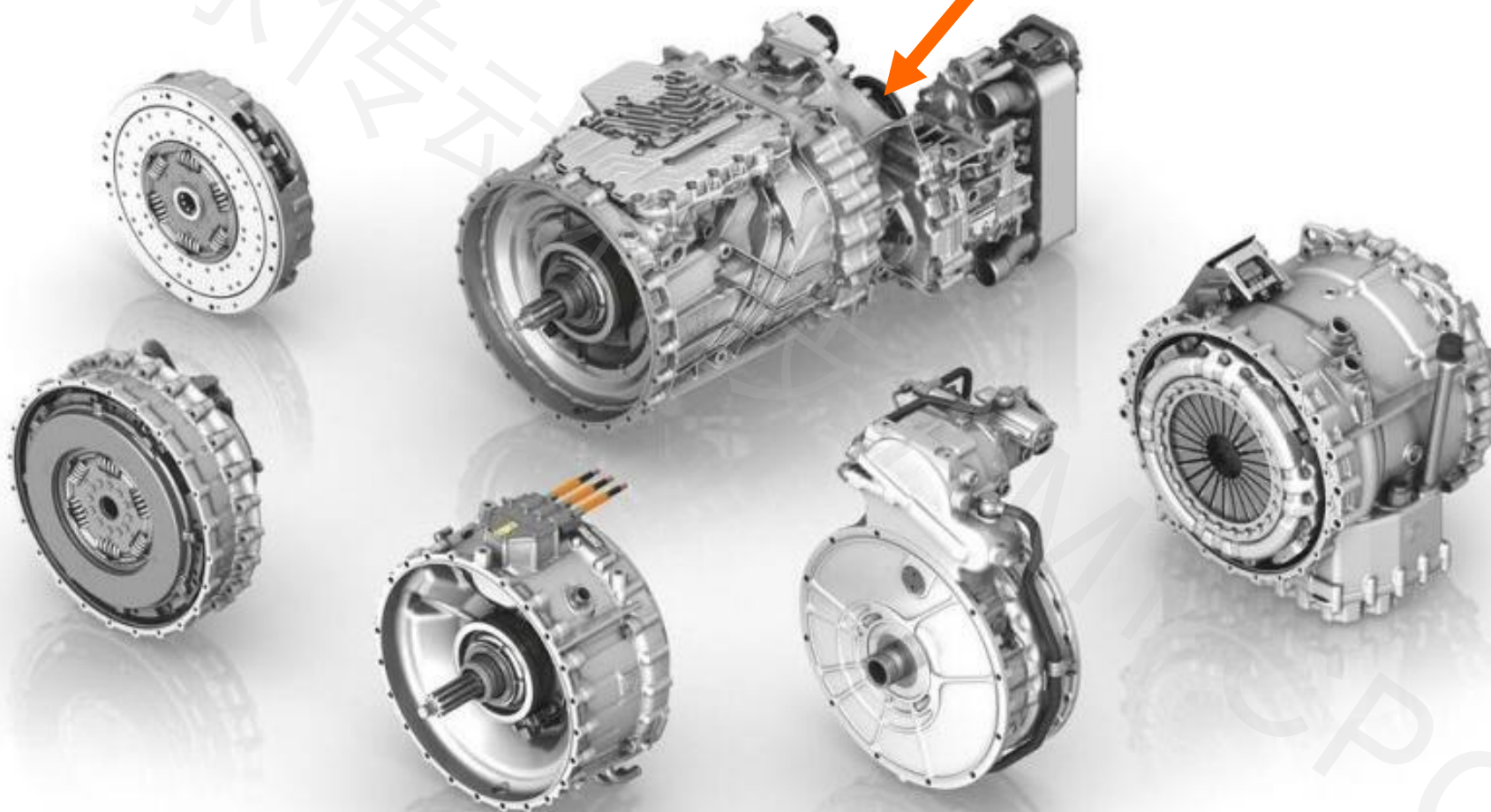
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商用车离合器未来发展趋势



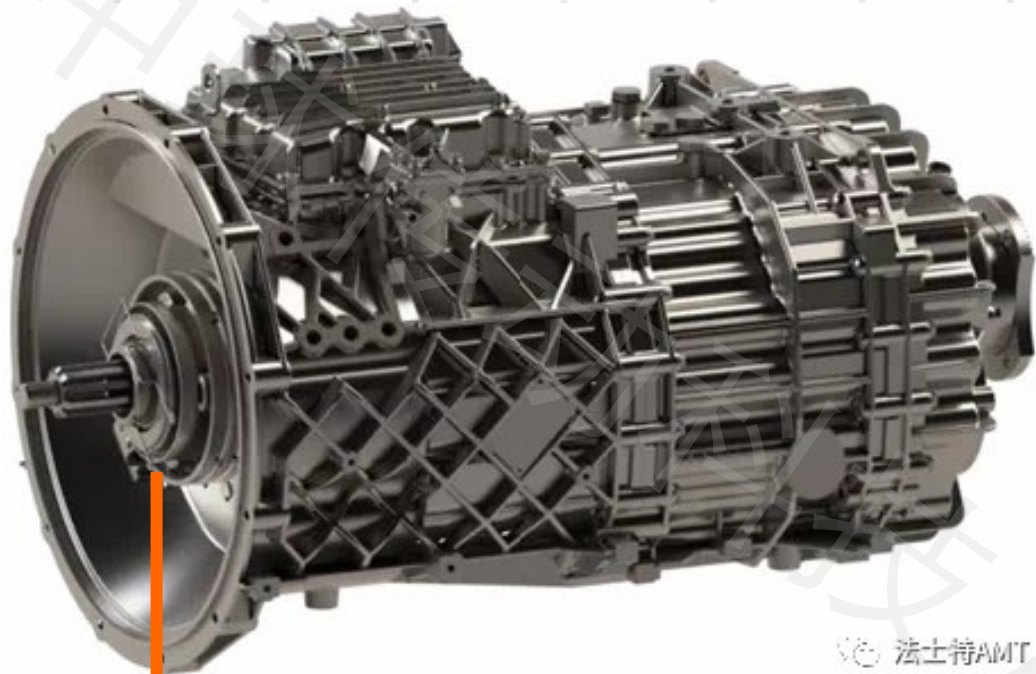
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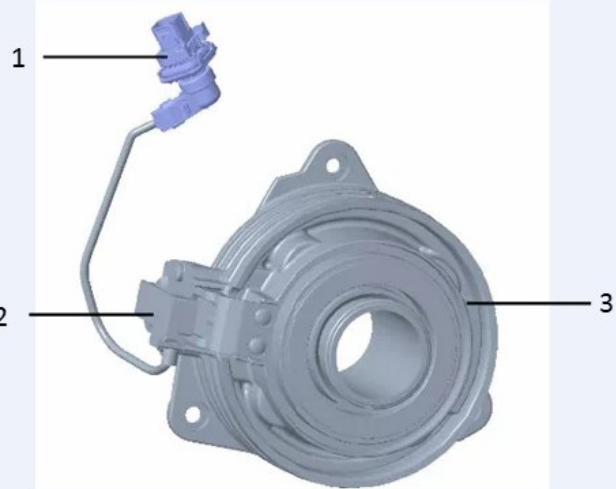
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商用车AMT国产应用



法士特AMT



1-离合器位移传感器线束插头 2-离合器位移传感器 3-离合器执行机构主体

法士特AMT



法士特AMT技术应用

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法士特AMT技术应用



法士特集成式AMT结构特点

多种匹配方案

缓速器

取力器

缓速器+取力器

新型自锁互锁机构

换档结构采用新型的一轴三叉/两叉及自锁互锁结构，提升了选换档速度和准确性。

标配强制润滑

润滑系统由油泵总成、油管、油滤芯构成。采用强制润滑方案，润滑更加充分。

外围无气管线束

变速器外面无气管、线路连接，均集成到变速器内部，具有高可靠性、高性能。

集成式SCU

包括TCU、主箱\前后副箱的电磁阀、传感器、气缸，TB阀、离合器阀、空滤、调压、温度传感器和气压传感器，结构紧凑，可靠性高。

中央式离合器执行机构（CPCA）

响应快、精度高、无偏磨（摩擦片寿命长）。

内置式变速箱制动器

变速器制动器采用内置式集成设计，并使用新的摩擦材料，提高制动器的一致性及其寿命。

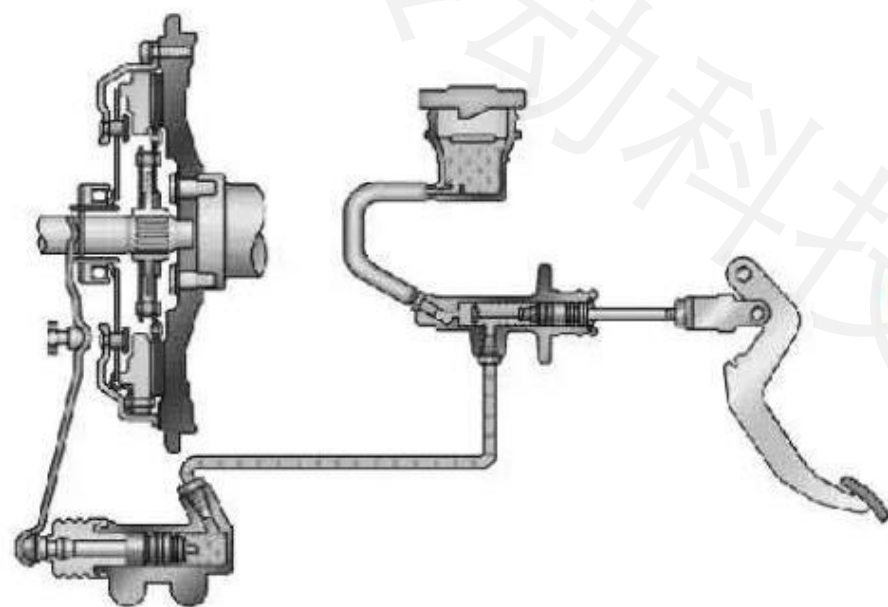
双中间轴结构、主副箱全斜齿

双中间轴结构，大扭矩、全铝合金壳体，重量轻，主副箱均采用全斜齿，噪音小。三段式结构：2-3-2或2-4-2。

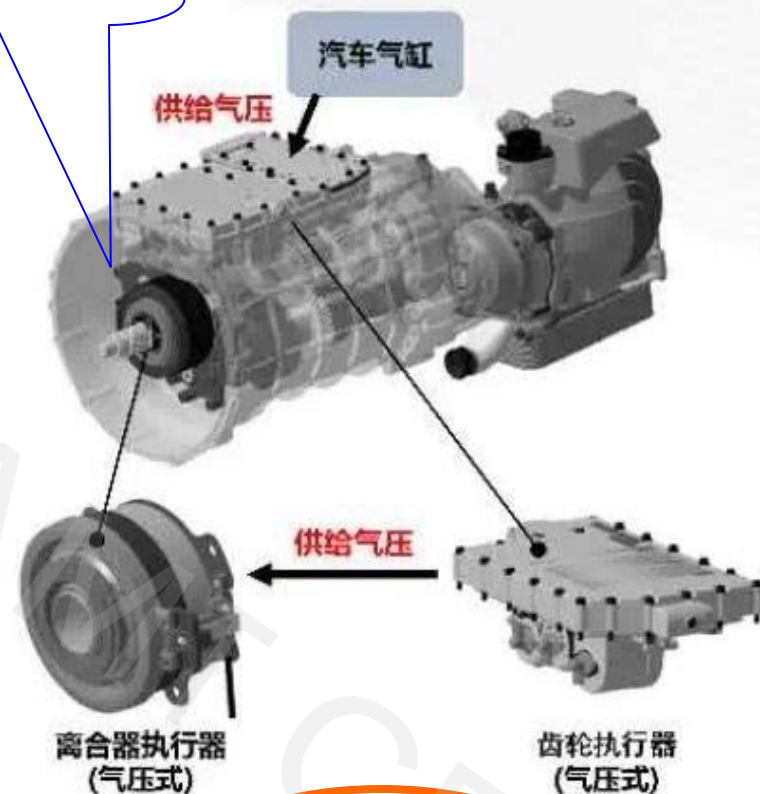
商用车离合器未来发展趋势

PHC

未来主流



< 传统 液压系统 >



< 气压系统 >

洞见趋势 顺势谋变 合作共赢

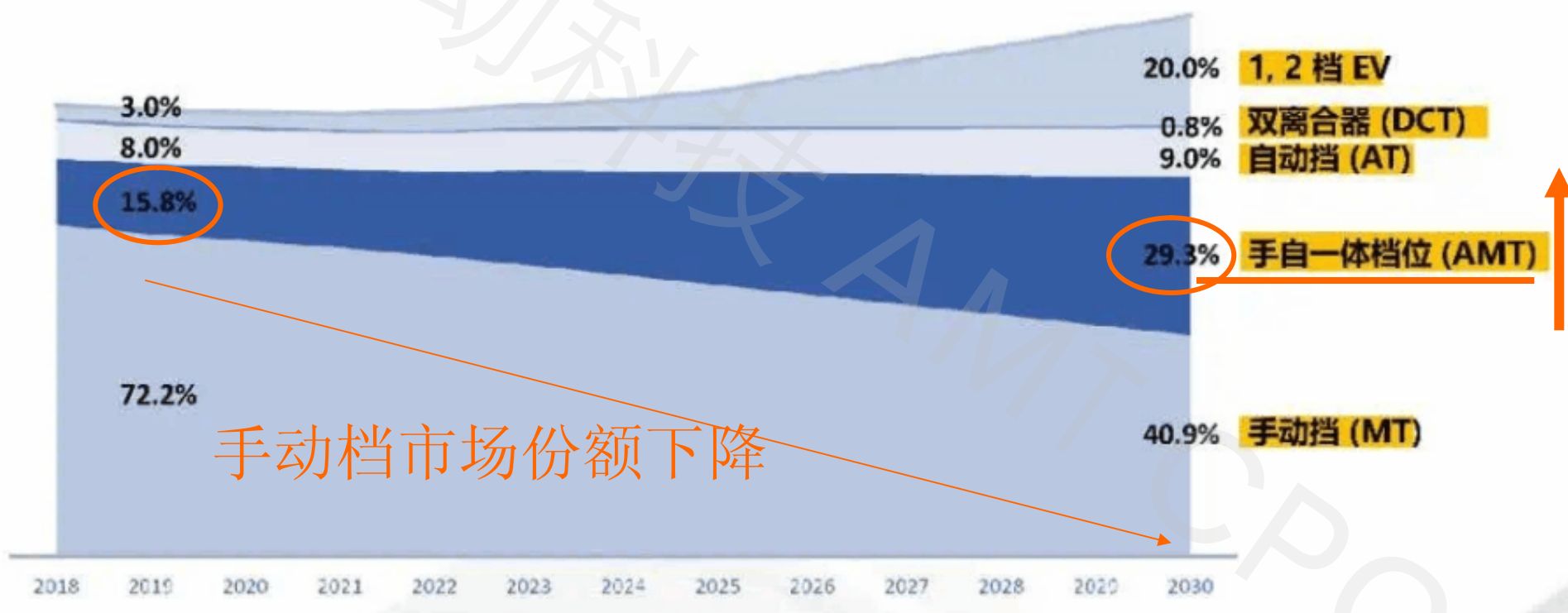
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商用车离合器未来发展趋势

重卡应用



◆ 全球变速器比重(3.5吨 以上 卡车&大巴)



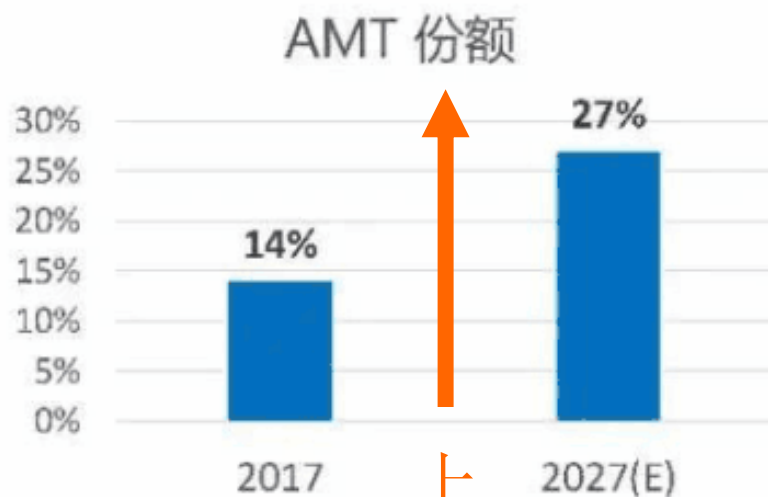
洞见趋势 顺势谋变 合作共赢

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商用车离合器重卡应用未来发展趋势

年度别 比重(%)	2019	2025(E)	2029(E)	2030(E)
1, 2档 EV	3.0%	7.7%	17.8%	20.0%
双离合器 (DCT)	1.0%	0.7%	0.6%	0.8%
自动 (AT)	8.0%	9.0%	9.1%	9.0%
手自一体档位 (AMT)	15.8%	24.3%	28.4%	29.3%
手动 (MT)	72.2%	58.3%	44.1%	40.9%
Total	100.0%	100.0%	100.0%	100.0%

随着越来越多的AMT申请进入，MT部分已经开始逐渐下降 (AMT: 7% CAGR)
DCT在未来十年仍将是一个利基市场



在降低总运营成本CO2法规的压力的推动下，
全球卡车和公共汽车上的自动变速箱 (AMT)
的份额将从2017年的14%增长到2027年的
27%

PHC



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商用车离合器未来发展趋势

TraXon

欧洲新车
已经量产
标配

Light. Strong.
Intelligent.

Comfort and reduced fuel consumption, less weight and more performance, a longer service life and less maintenance – with the TraXon automated transmission system we are on our way towards achieving a new standard of efficiency.

Transmission efficiency
in direct drive

99.7%

As a modular transmission platform featuring 12 or 16 forward gears, TraXon offers a variety of possible configurations. These include a single or twin plate clutch, a dual clutch, a hybrid module, the Intarder and various power take-offs.

Specially developed single and twin disk clutches are available for every application, allowing the TraXon transmission system to achieve its full performance.

ConAct® replaces the conventional clutch actuation system with a concentric, pneumatic release cylinder. The system automatically determines the optimal release position; the vehicle electronics system smoothly controls the actuation process. This eliminates the risk of a clutch overload caused by the driver.

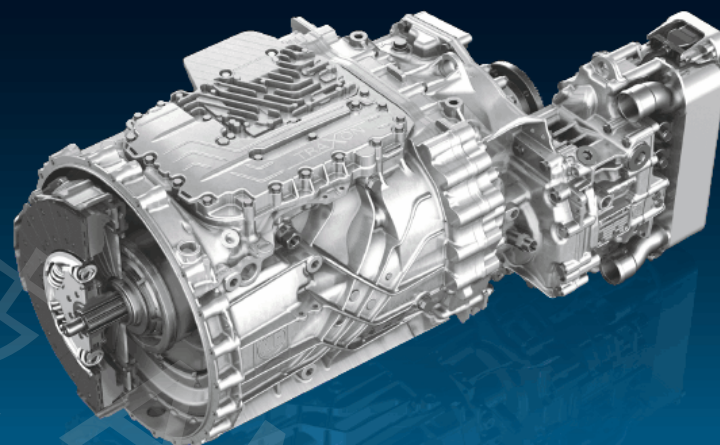
PreVision GPS is the ideal combination of transmission and GPS. This system makes it possible to factor in uphill

and downhill gradients in advance for the selection of shift points.

An optional predictive maintenance function will be available from 2019. This offers fleet operators the capability to monitor the condition of critical individual components such as transmission oil or clutch disks in the Cloud. Maintenance can thus be planned proactively, which in turn can shorten vehicle downtimes and avoid breakdowns. This reduces costs and extends the transmission's service life at the same time.

The hybrid module is now in its third generation and supports electric driving over short distances as well as boosting the diesel engine and the recuperation of braking energy. It also uses up to 7 percent less fuel than conventional modules.

The extensive range of ZF power take-offs expands the range of application of the transmission system.



Advantages at a glance

- High torque range:
DD up to 2,900 Nm, OD up to 3,400 Nm
- Less fuel consumption thanks to maximum transmission spacing
- Less transmission noise
- Control electronics with many intelligent additional features
- Clutch perfectly adapted to the transmission system

ZF
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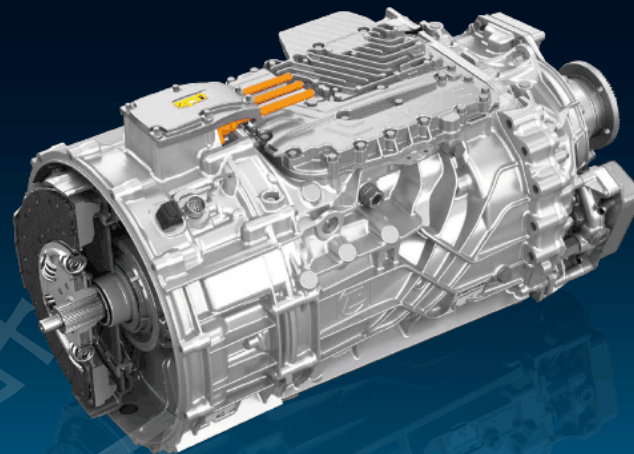
商用车离合器未来发展趋势

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TraXon Hybrid

Clean. Quiet.
Efficient.

减少
碳排放



Reducing CO₂ emissions is the order of the day. Low-cost goods transport, plus delivery in city centers that have diesel vehicle bans. Coach operators who want to reach tourist attractions or city-center hotels face similar challenges.

Reduction in fuel consumption
by up to

7 %

The solution is vehicles that are both economical in long-distance travel and also permitted in zero-emission zones. Specially for this purpose, ZF offers its TraXon transmission system in combination with a powerful hybrid module that enables electric driving. The basis for this is the state-of-the-art TraXon transmission system, which comes with outstanding characteristics.

The TraXon hybrid concept supports the vehicle drive while saving fuel, and its boost function simultaneously improves vehicle dynamics in long-distance travel. In inner-city operation, the hybrid drive can be uncoupled from the internal combustion engine for locally emission-free driving.

While a fuel saving of up to 7% is realistic on long-haul routes, trucks in all-electric operation drive emission-free and almost noise-free.

During braking, electric energy can be recuperated at all times.

The electric motor with innovative cooling concept develops a peak performance of up to 130 kilowatts, which is enough for even heavy vehicles. The highly integrated hybrid module requires a transmission system installation space that is barely longer – approx. 210 millimeters.

The hybrid system comes complete with inverter and electronic control unit, traction control system, fault memory, driving functions and more. It features interfaces to the energy management system as well as to the Openmatics telematics platform.

Right from the start, when designing the clutch, ZF took into account the special requirements that result from the additional mass of the electric motor and the hybrid functions.



Advantages at a glance

- Complete hybrid system with inverter and EST 64 electric control unit
- Suitable for buses and trucks with a total weight of 26 or 40 tons
- Electric motor with integrated ratio stage
- 130 kW peak performance / 75 kW continuous performance
- Hybrid functions such as all-electric driving, boost mode, regenerative braking and stop/start
- Clutch specially designed for the hybrid system

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商用车离合器未来发展趋势

Manual Transmissions for Trucks & LCV Because They Prove Their Worth Every Day

ZF manual transmissions are perfectly adjusted to the service portfolio of modern commercial vehicles. They deliver the right torque for every situation, are easy to operate and are characterized by their quiet operation and optimal gear ratio spread.

The ZF manual transmissions can be used variably, promote low fuel consumption and guarantee efficient operation. Power take-offs further expand the range of applications.

Ecosplit: driveline technology for heavy trucks

Ecosplit enables long-distance truck drivers to always achieve the optimum output with all engines, even in case of difficult topography and with heavy loads. The transmission also demonstrates its strength in off-road

applications, on construction sites, and in special vehicles. The optional Interarder also relieves the service brakes and increases safety.

Ecomid: driveline technology for medium-duty trucks

For long-distance traffic, maneuvering in the pedestrian zone, collecting garbage, working on construction sites or even clearing snow in winter – equipped with the Ecomid manual transmission system, trucks can be used efficiently around the world.

Ecolite: driveline technology for light trucks

The robust, easy-to-service 6-speed Ecolite transmissions ensure long-lasting driving pleasure in delivery traffic. Powerful but light, characterized by quiet operation and a long service life. In lower gears, the transfer of engine output is powerful, so it can also be used for off-road applications.

Ecolite for light commercial vehicles

The modular transmission kit designed for the three-and-a-half to eight-ton vehicle segment transmits torques of up to 480 Nm or even more if an intermediate plate is used. Functions such as automatic engine stop, all-wheel drive or power take-offs can be ordered based on application requirements.

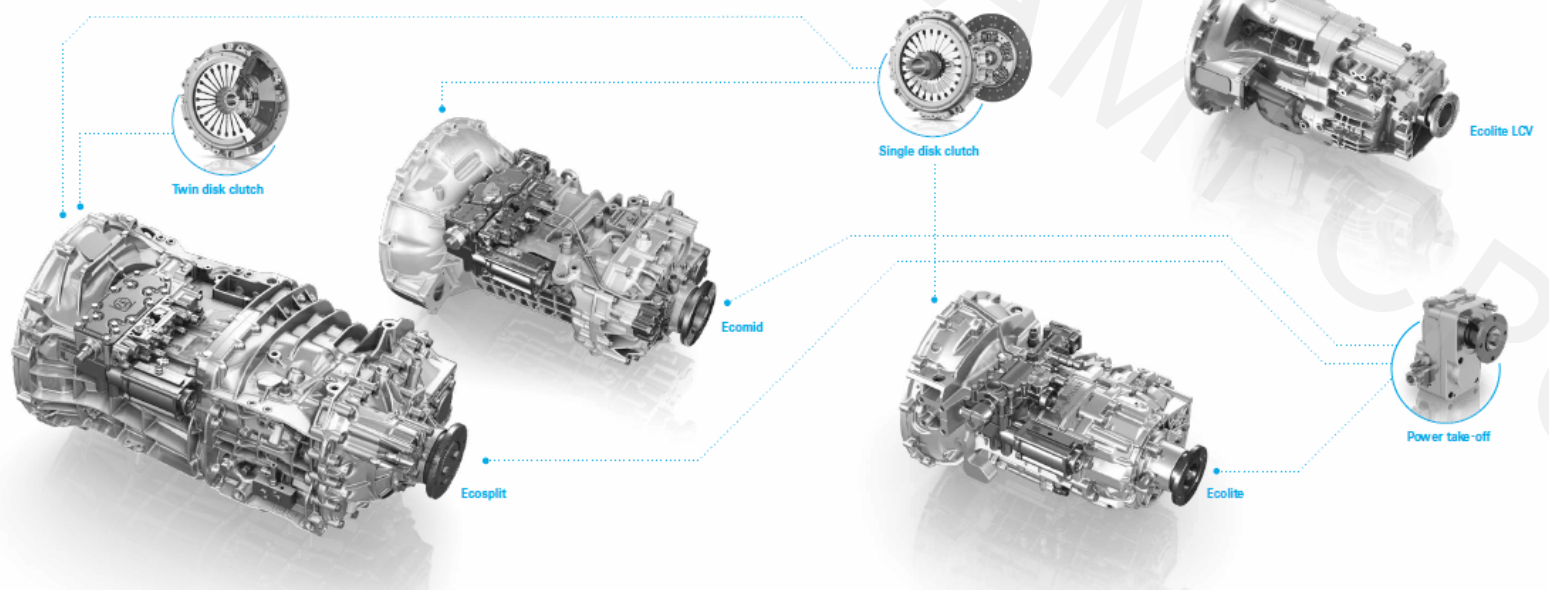
The use of standard components also makes the transmissions attractive for emerging markets. With regard to costs, shift comfort, service life and emissions, the transmissions can be flexibly adapted to fit the respective market requirements.

Systematic further development: ZF clutches

ZF offers the appropriate clutch system for all transmissions including clutch releasers. The diaphragm springs used in the clutch cover offer good control characteristics for launching and low pedal forces. Clutch facings developed and produced in-house are extremely wear-resistant and make controlling the clutch very comfortable. The torsional damper integrated in the clutch disk eliminates driveline vibrations, thus protecting the transmission and providing driver comfort.

Due to its resistance to high thermal loads, the twin disk clutch is particularly well-suited for heavy-duty applications, for example, on construction sites.

ZF
新技术应用



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商用车离合器未来发展趋势

Driveline Components Experts Among Experts

Time and time again, the implementation of the engine/transmission interface proves to be highly complex. This is why manufacturers around the world who focus on performance, comfort and durability place their trust in tried and tested ZF components.

Decades of experience enable ZF to develop clutch systems which are perfectly fine-tuned to meet their demanding tasks in commercial vehicle drivelines, which is appreciated by vehicle manufacturers all over the world.

The engine input torque is transferred from the clutch cover to the clutch disk. Especially in automated drivelines, the perfect design of all parameters is necessary in order to optimize transmission performance when launching and shifting. Their modular design enables ZF clutch disks to be adapted individually to any application. The special cushion spring technology provides for high comfort when launching the vehicle, and the optional predamper effectively eliminates idling noise.

ZF clutch facings with optimized friction coefficients, high wear and burst strengths as well as particular fading resistance reliably and precisely transfer engine torque. They are produced without using solvents and heavy metal, which is good for the environment.

Self-centering and maintenance-free push or pull-type clutch releasers interrupt the torque transmission when launching, during shifts and when stopping. The concentric ConAct pneumatic clutch actuation cylinder was developed for fully automatic operation. When combined with automated transmissions, the system automatically determines the ideal release position and allows for very gentle vehicle launch.

Clutch for auxiliary drives The multidisk clutch separates the mechanical connection of the compressor completely from the engine as soon as the cut-off pressure is reached. The fact that auxiliaries can be switched on and off based on demand reduces fuel consumption and thus also CO₂ emissions.

Dual Mass Flywheel Stricter emission standards in combination with greater engine output lead to increased vibrational tendency of the driveline due to rotational irregularities. At the same time, there is an increased demand for noise reduction, comfort and the protection of the transmission and vibration-sensitive vehicle components. The Dual Mass Flywheel is the answer – it provides for perfect vibration isolation.

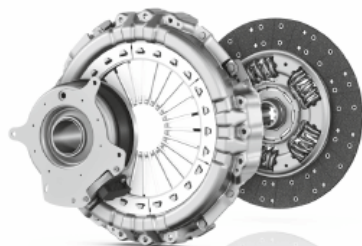
It offers excellent protection from vibrations across the entire engine speed range.

Torsional dampers are used to protect the driveline from both engine torque peaks and uneven running. Through the selection of the corresponding torsional damper size and spring set, the characteristic curve can be adjusted quite well to the respective application profile.

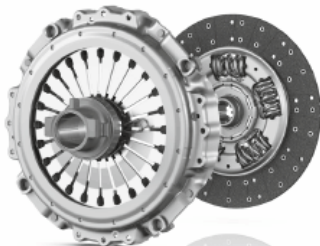
In challenging applications with up to 4,000 Nm engine torque, the new torsional damper TD 285 guarantees the required smoothness and reduces stress on all components of the downstream driveline.

最新技术

传统产品



Push-type clutch system with ConAct pneumatic clutch actuation cylinder



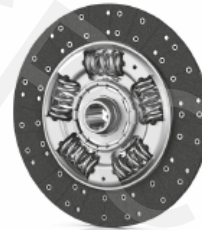
Pull-type clutch system



Air compressor clutch



Dual Mass Flywheel



Clutch disk with torsional damper

ZF
新技术应用

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分享-日本松下下的经营理念



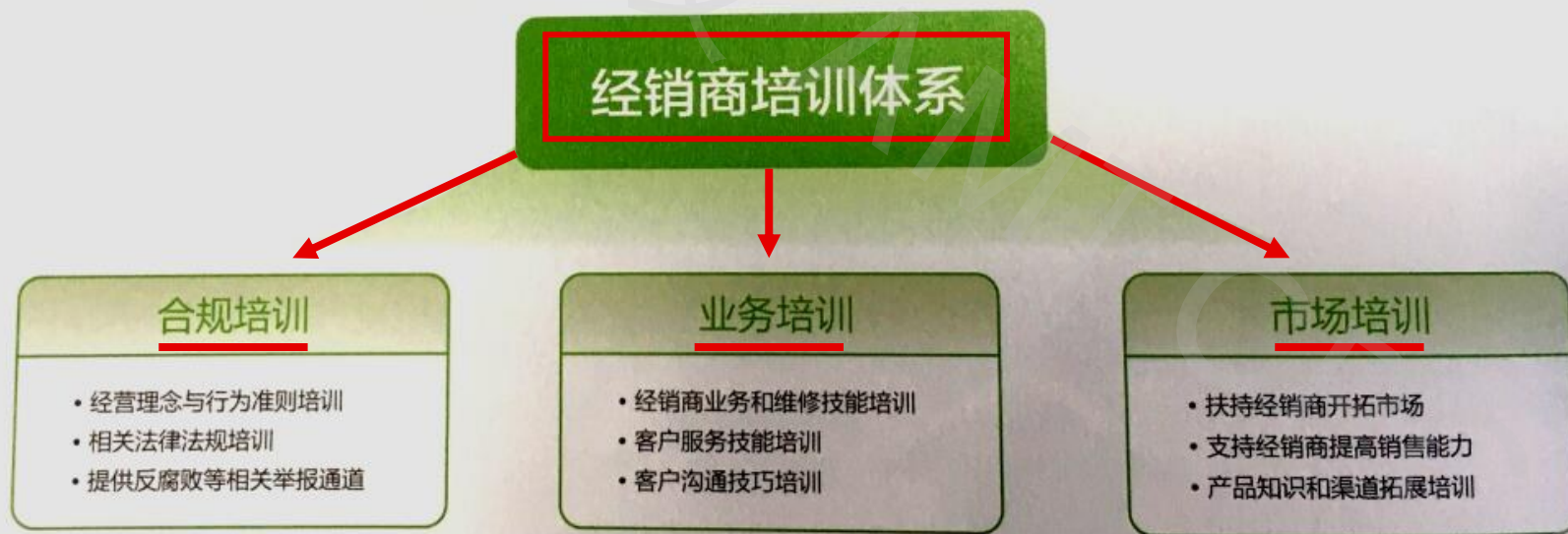
松下-助力经销商成长

经销商
渠道建设
理念

&&打造销售长久不衰的秘诀&&

助力经销商成长

经销商是中国松下的组织延伸、事业延伸和责任延伸。我们高度重视与经销商的沟通交流，组织召开经销商大会和代理店大会，传递公司的经销商政策与事业方针，倾听意见和建议；开展专项培训，提升经销商的服务能力和管理经验，与经销商共享收益、共同发展。



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合作 共赢

§ 相聚是缘
§ 祝各位老总、同仁：
§ 事业辉煌！
§ 身体健康！
§ 万事达意！



感恩感谢！

以上分享，不当之处请大家多多指正，谢谢大家！

洞见趋势 顺势谋变 合作共赢

2020年11月

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