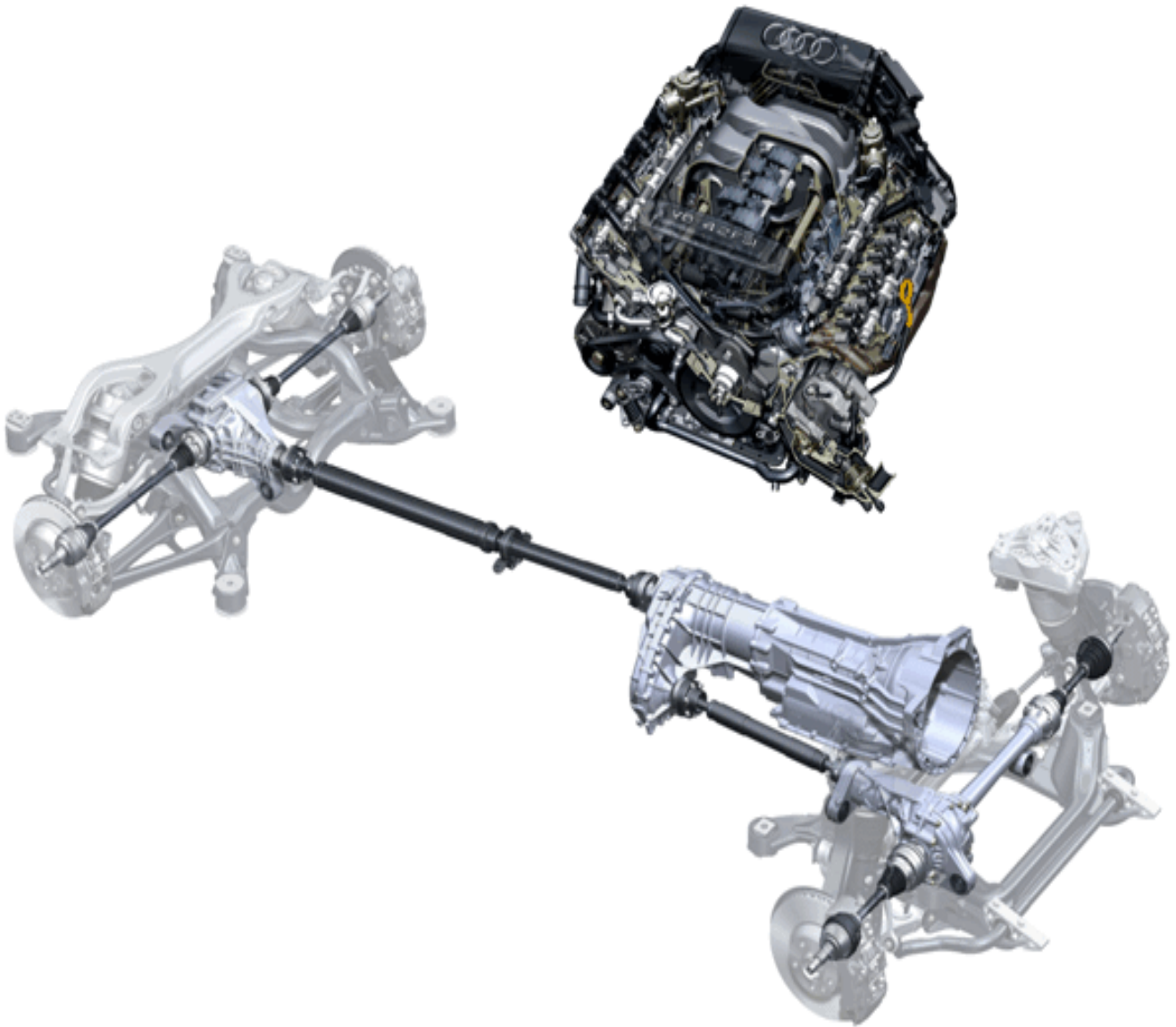


Audi Q7 发动机和变速箱



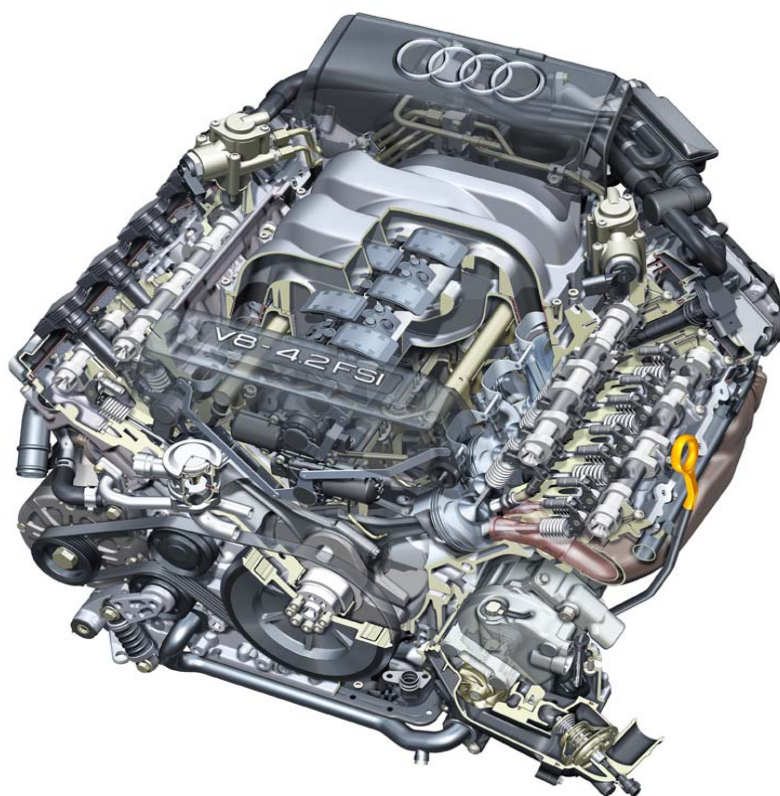
1. 发动机及变速器的配置

- 3.0 TDI (171kW/233 bhp)匹配 (6速 tiptronic 手自一体)
- 4.2 FSI (257 kW/350 bhp)匹配 (6速 tiptronic 手自一体)
- 3.6 FSI (206 kW/280 PS)匹配 (6-速 tiptronic 手自一体) 和 (6-速手动)

2. Audi Q7 4.2 FSI - 技术亮点

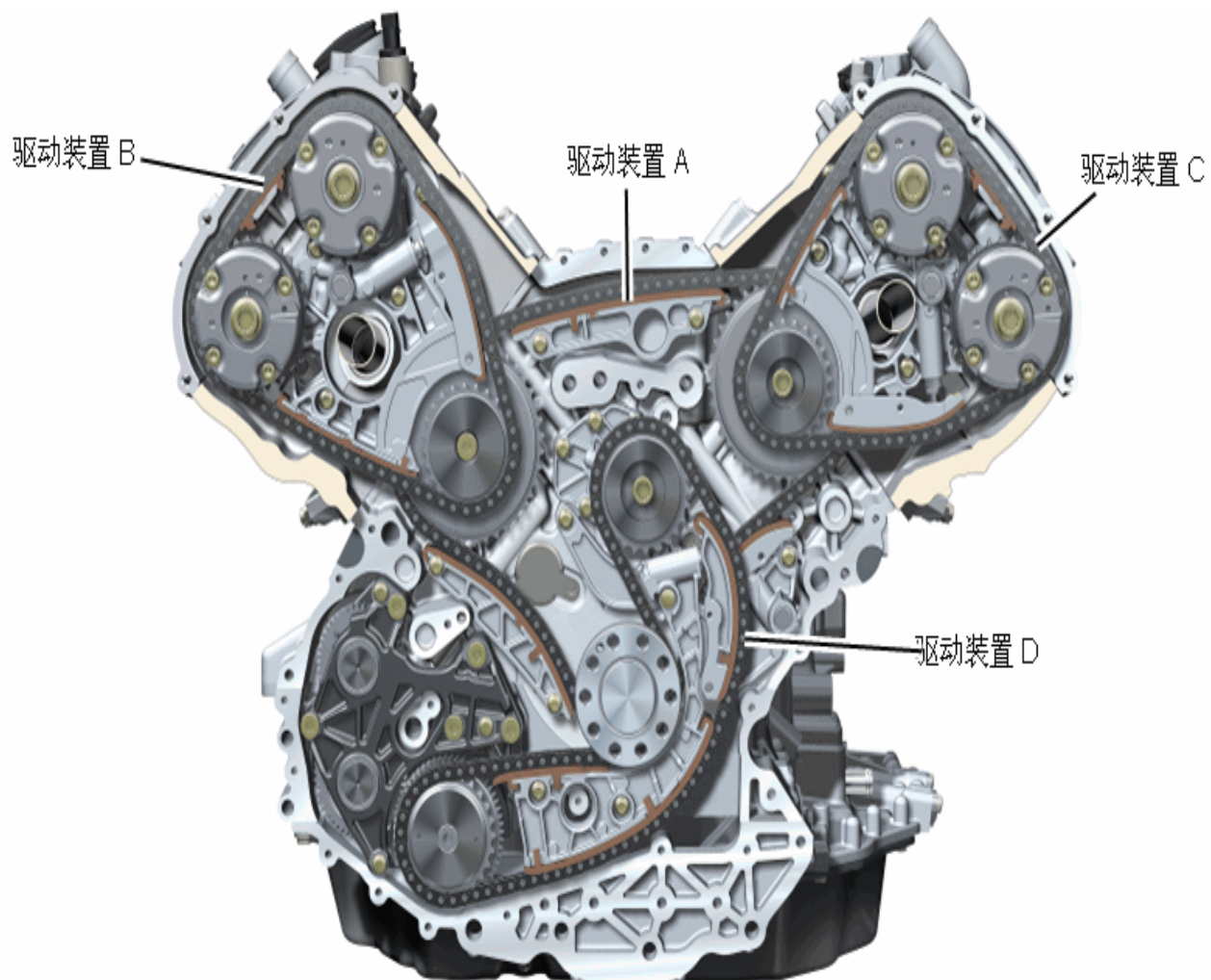
- V8 发动机，每缸 4 气门
- 257 kW (350 bhp), 440 Nm 最大扭矩 (3,500 转/ min.)
- 汽油直接喷射技术结合高压压缩比 (12.5:1)
- 全工况均采用均质混合方式：内部产生的冷却效果使发动机的功率及扭力矩大超过普通的多点喷射发动机

- 进/排气可调凸轮轴 结合两级调节进气道系统
- 免维护正时链条
- 电子节气门
- 符合欧 4 排放标准

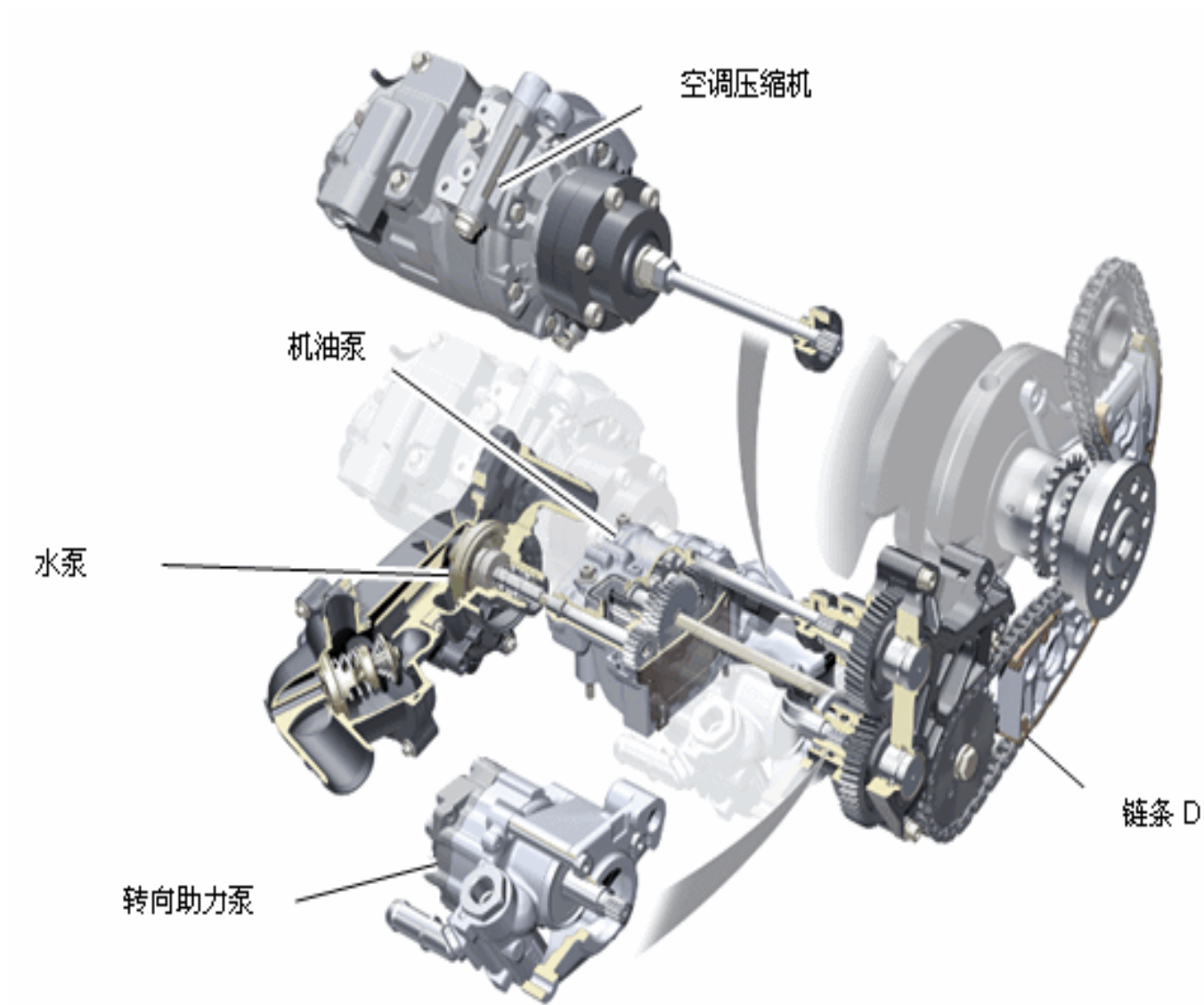


2.1 曲柄机构

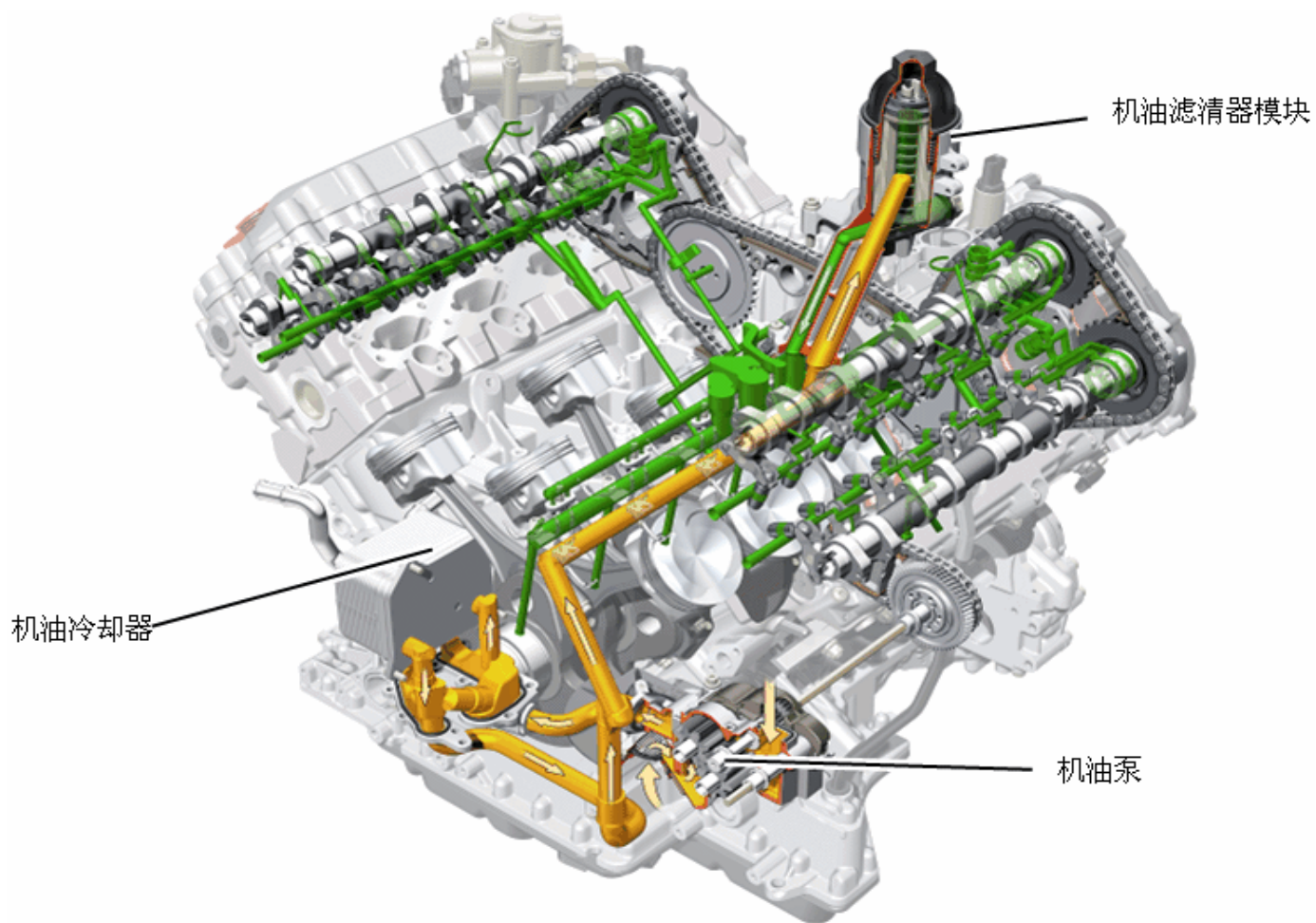
- 使用的时滚子链条
- 集成有单向阀的液压链条张紧器



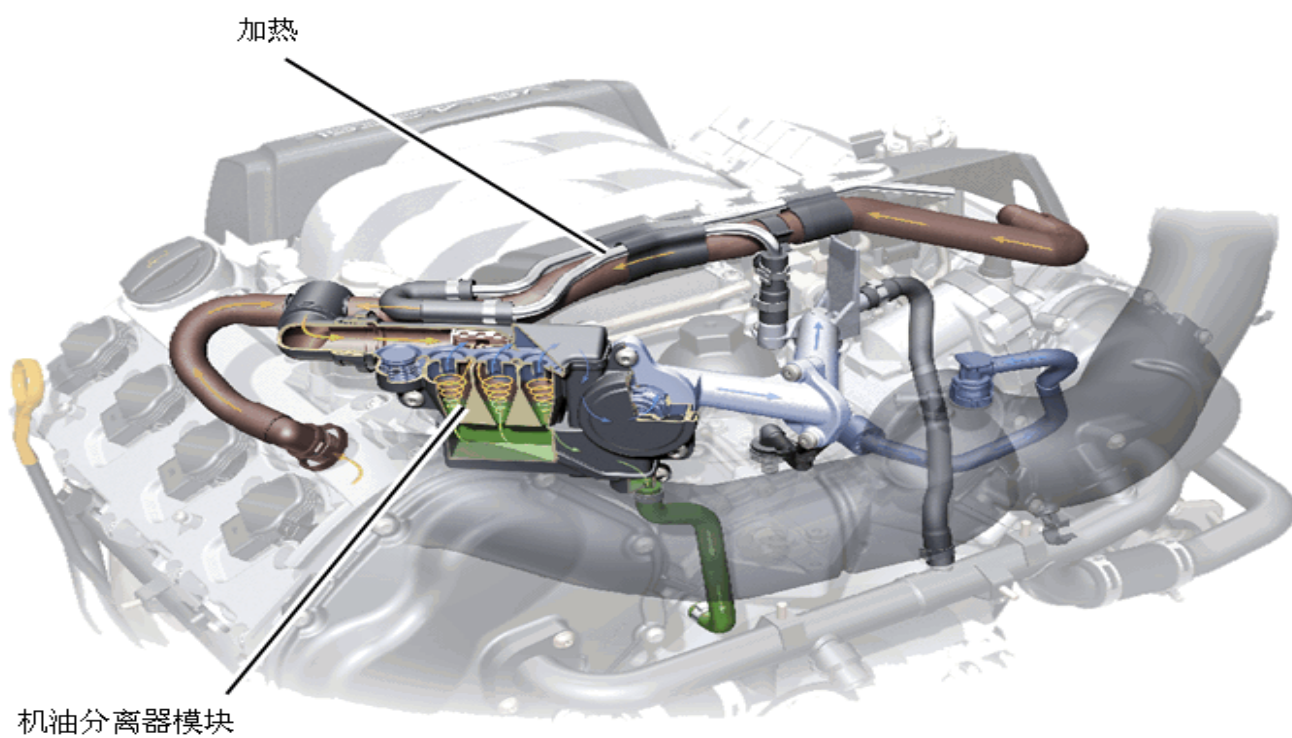
2.2 副总成的驱动



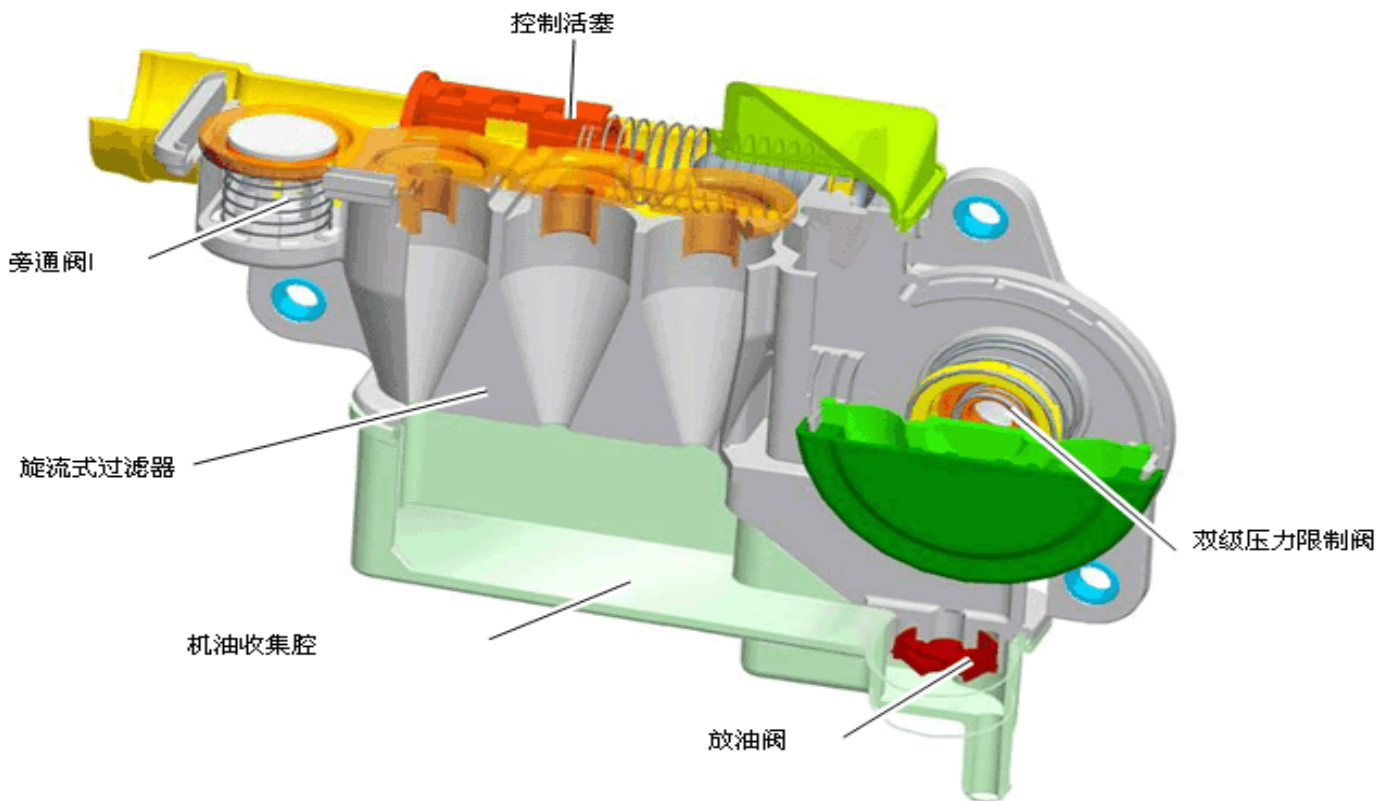
2.3 机油循环



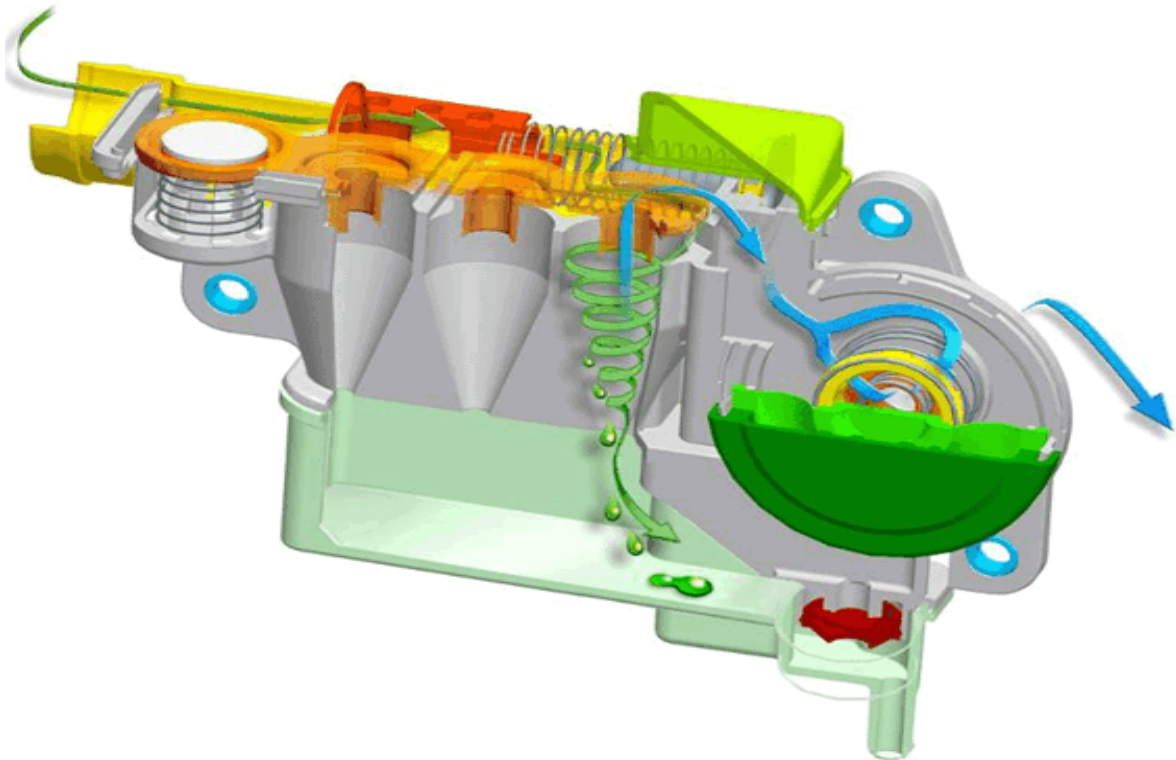
2.4 曲轴箱通风



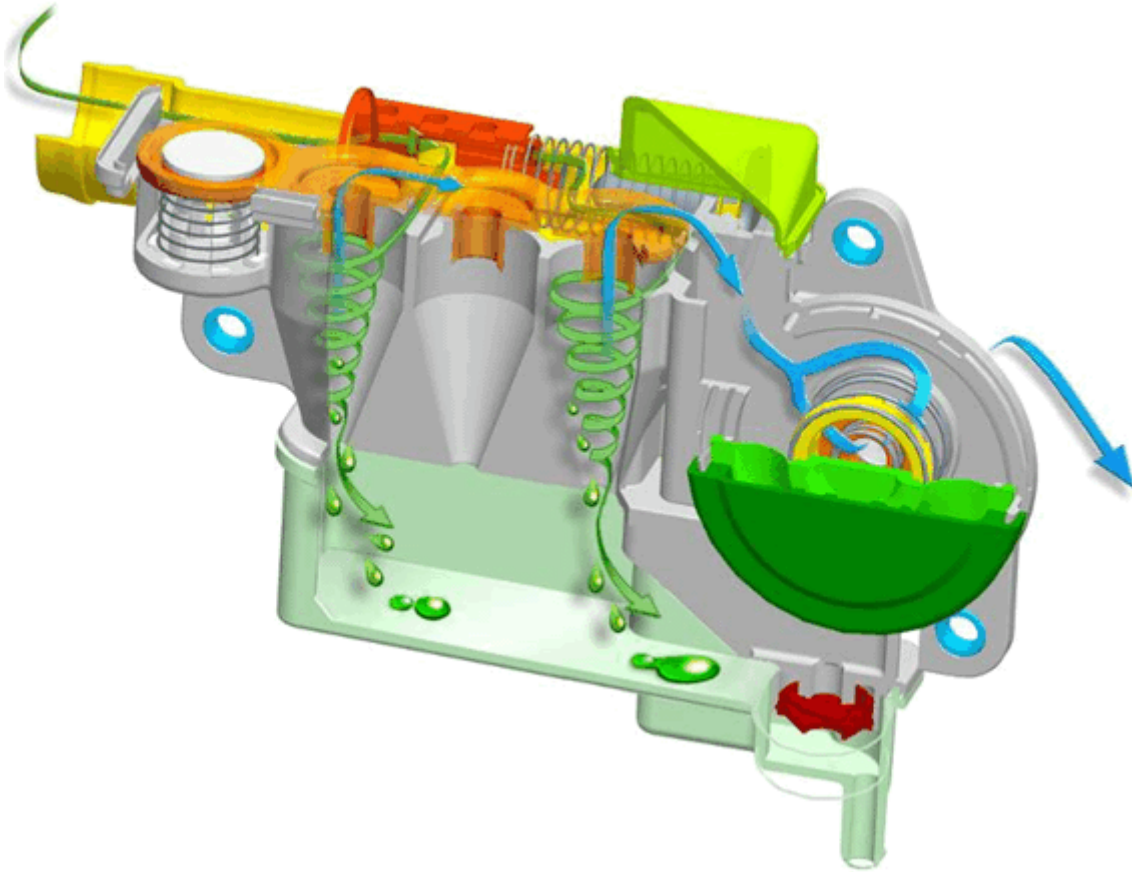
1) . 机油分离器



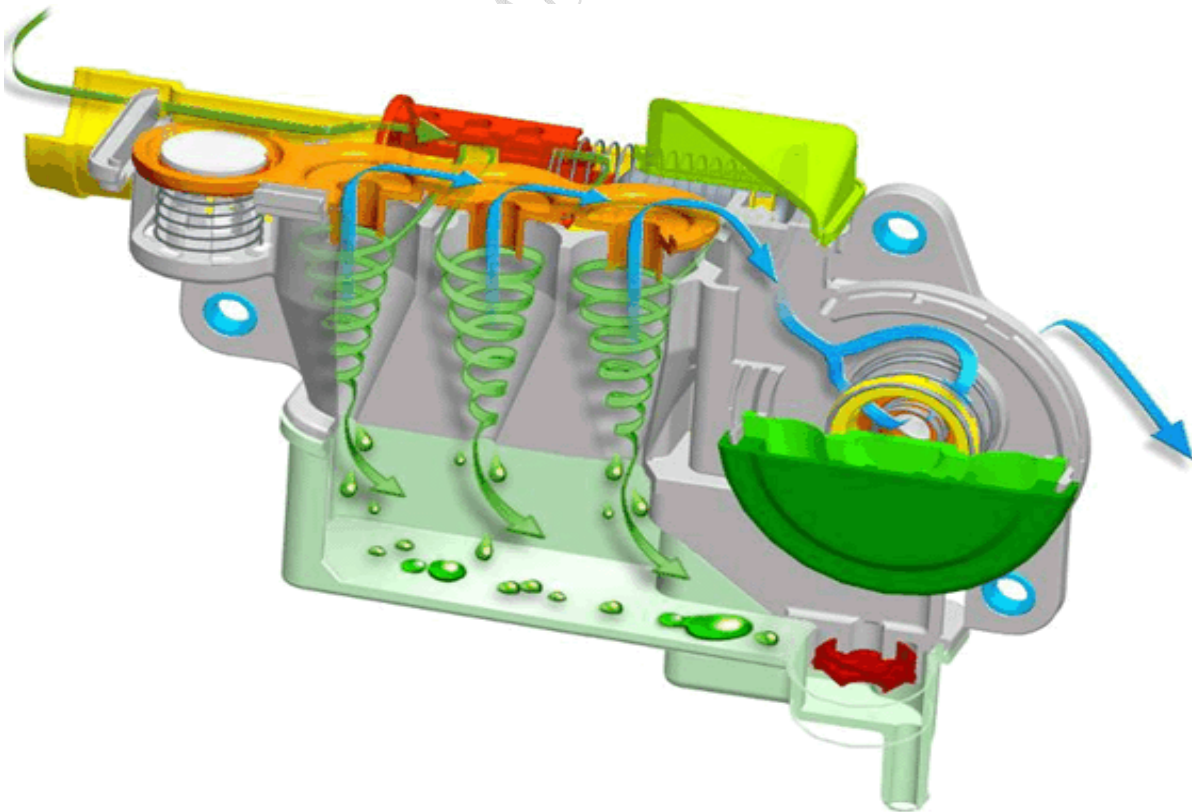
在发动机转速很低时，通过某一级分离机油



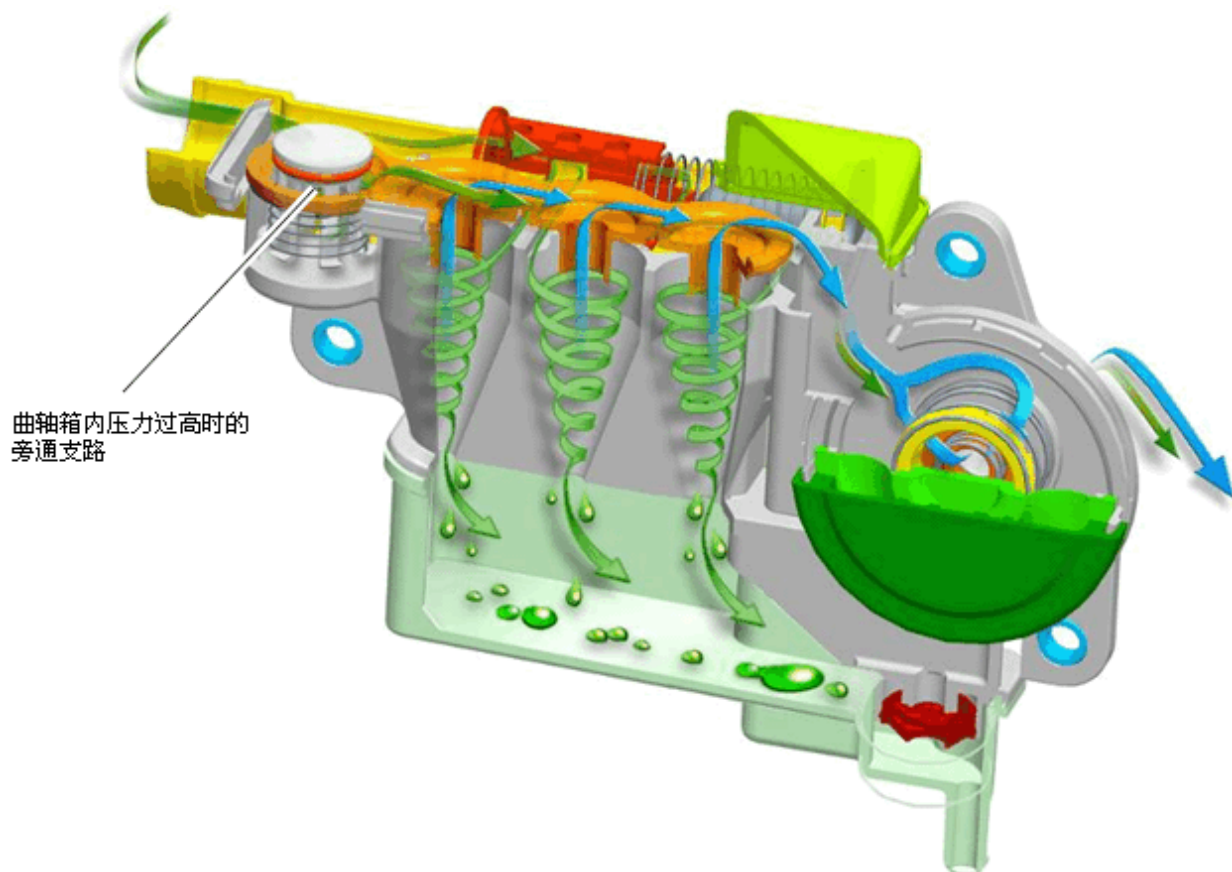
在发动机中等转速时经双级分离机油



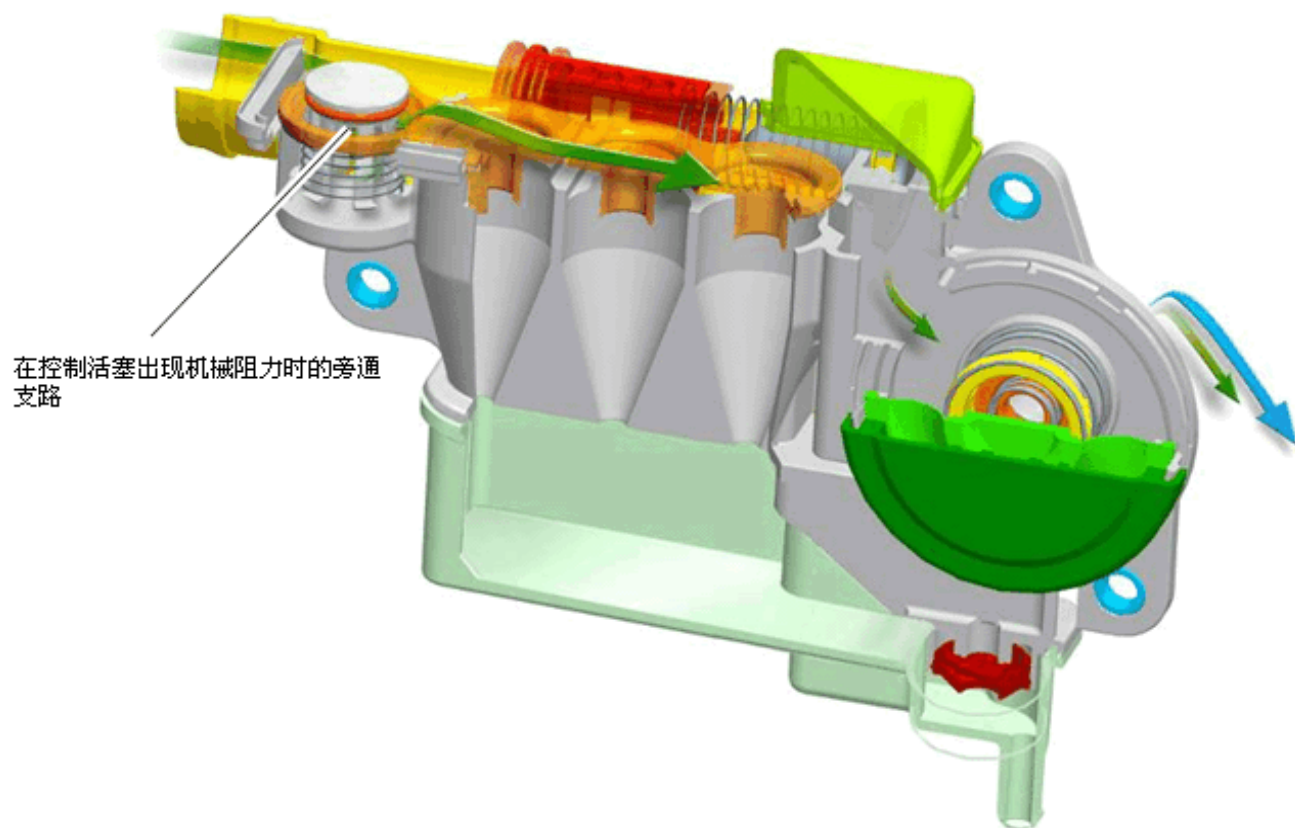
在发动机转速较高时，经三级分离机油



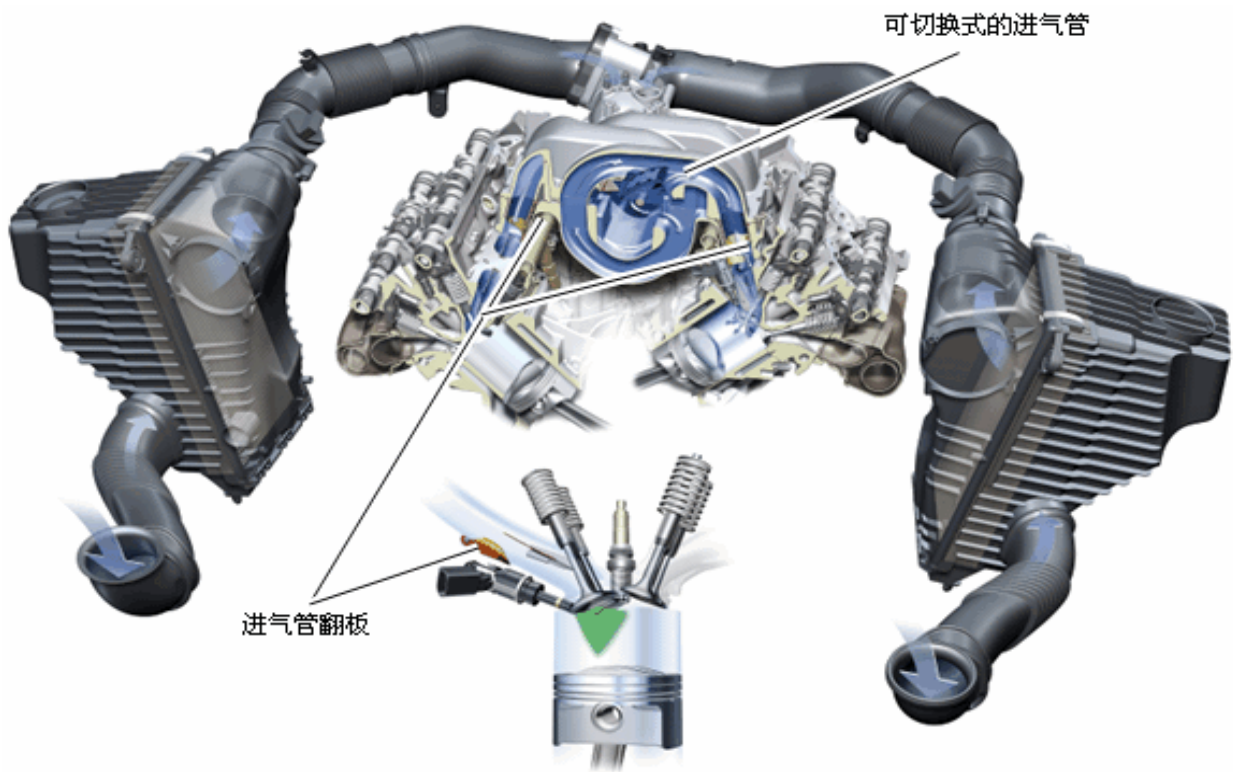
在发动机转速较高时，经三级分离机油



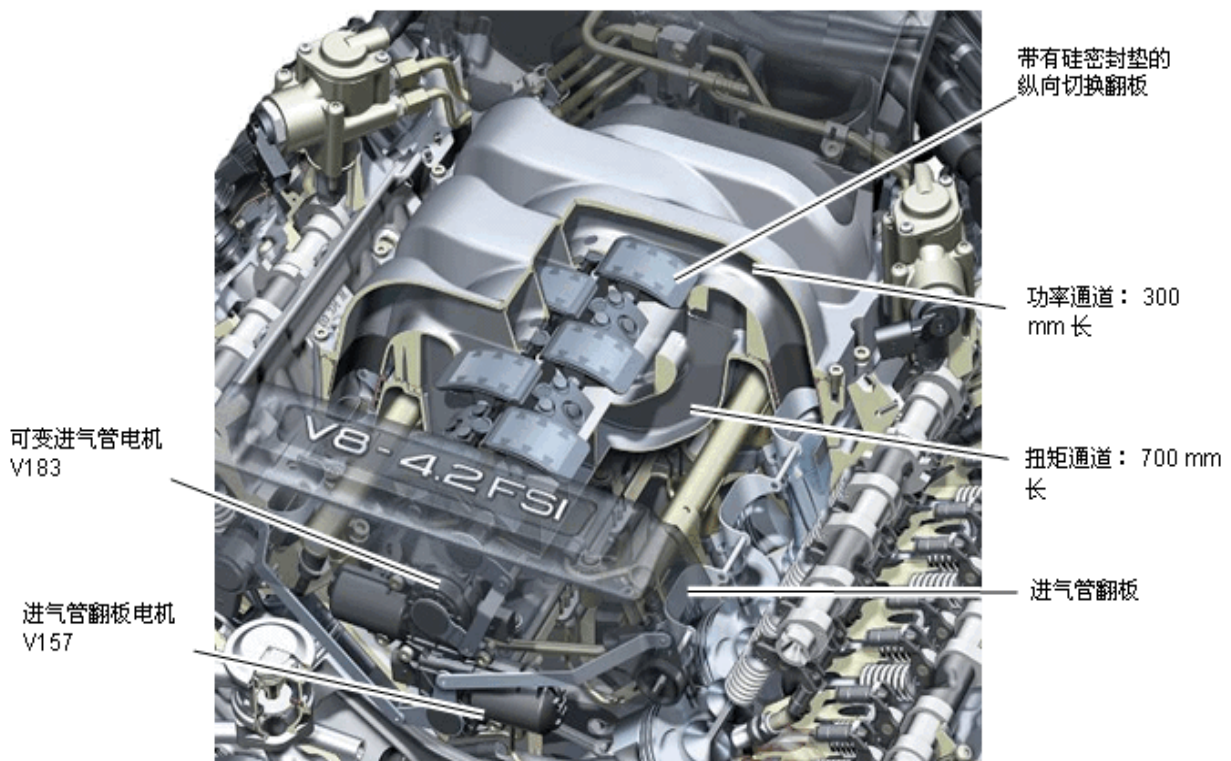
2) . 细机油分离器



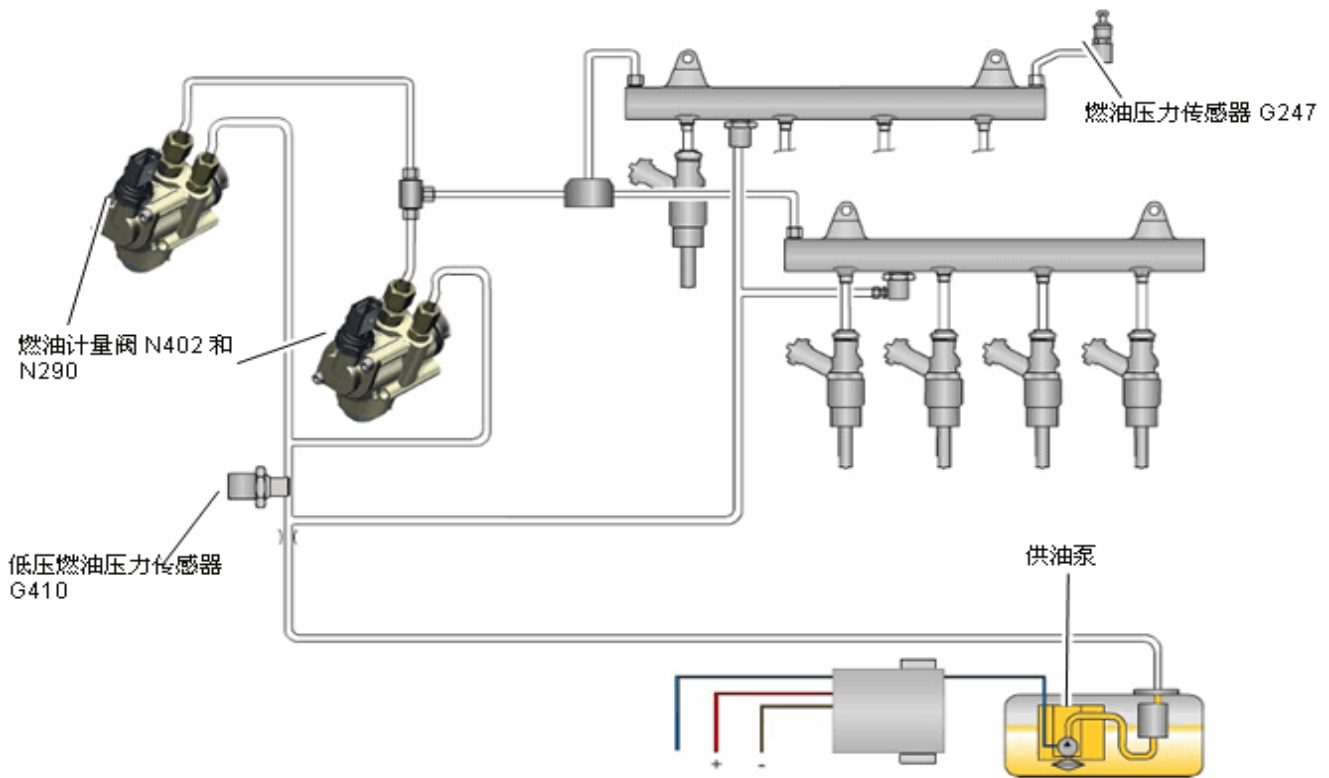
2.5 空气进气



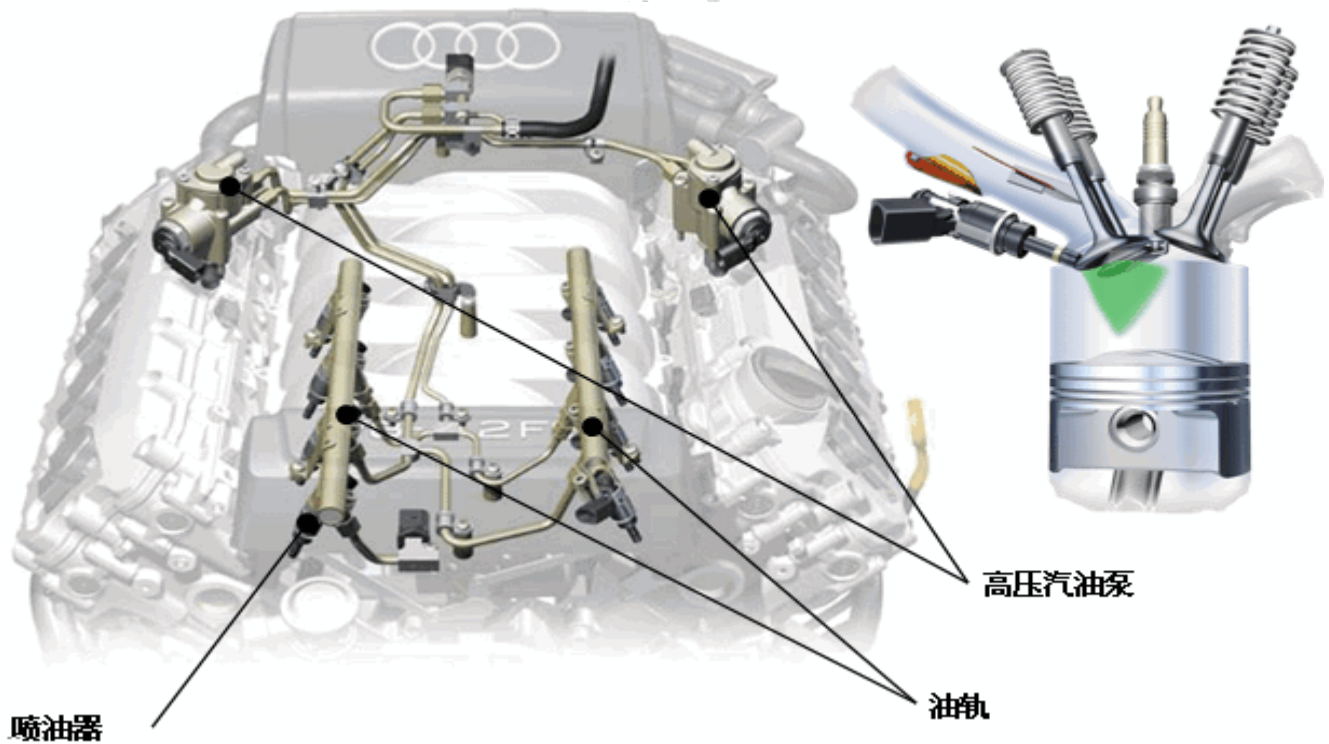
可变进气管



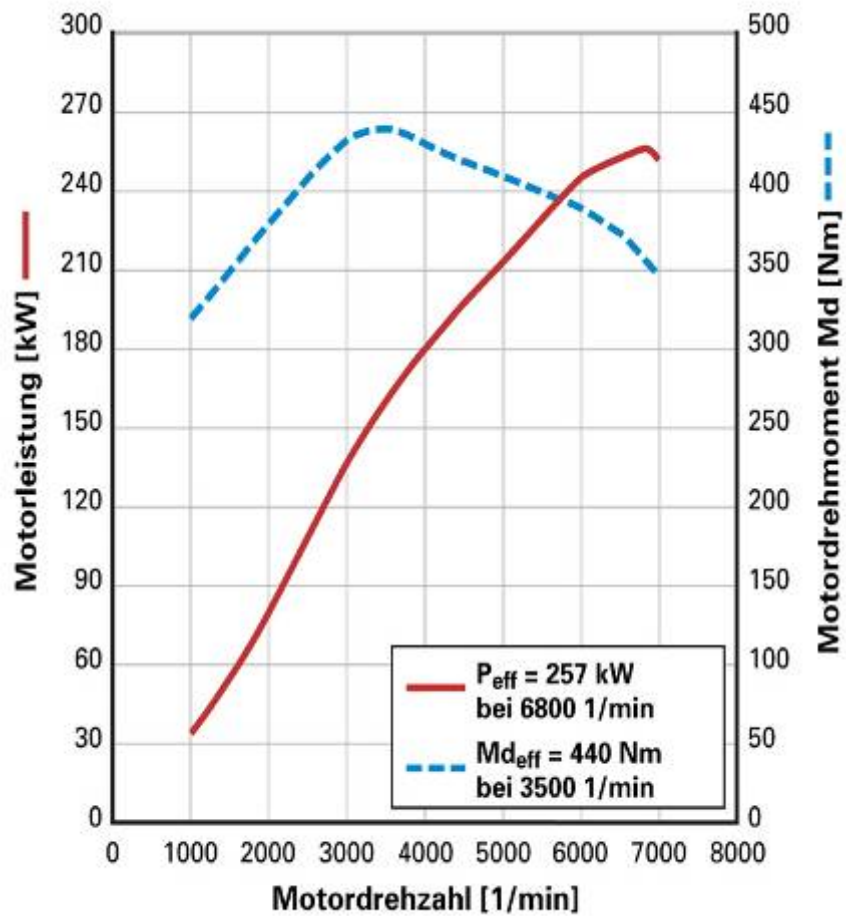
2.6 燃油供给



2.7 汽油直接喷射 (FSI)

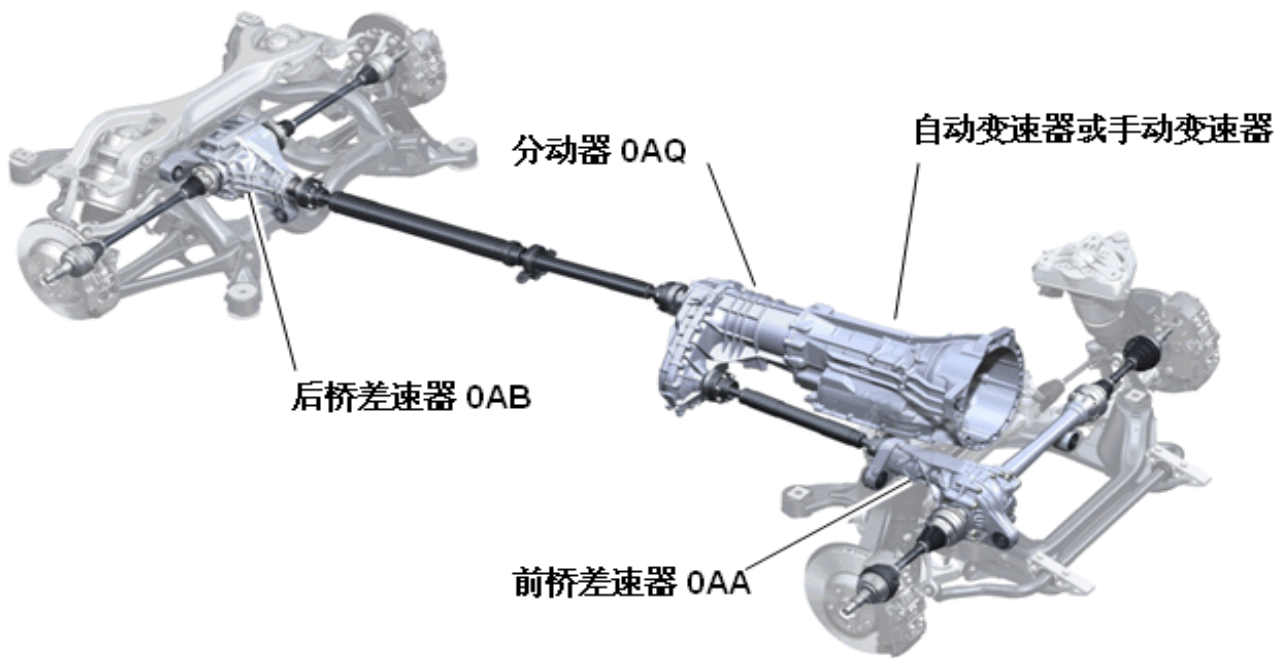


2.8 Audi Q7 4.2 FSI—技术数据



最大功率.kw (bho) at 1/min	257(350)/6,500
最大扭矩.Nm at 1/min	440/3,500
性能	
最高车速. Km/h	244
0-100 km/h .s	7.4
油耗 (99/100/EU) .l/100km	
市区	19.5
郊区	10.2
平均	13.6
CO2 排放量. g/km	326
油箱容积.l	100
里程.km	735

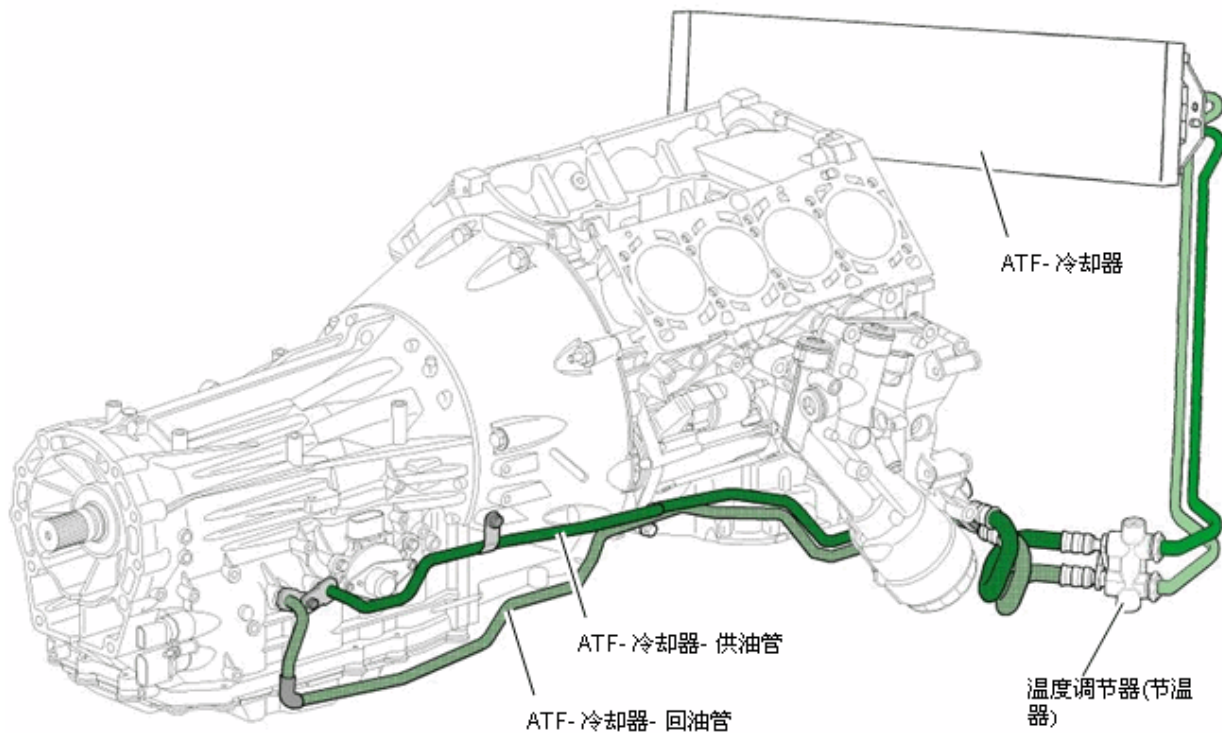
3. 传动结构



3.1 Audi Q7 变速箱

1)ATF 油冷却

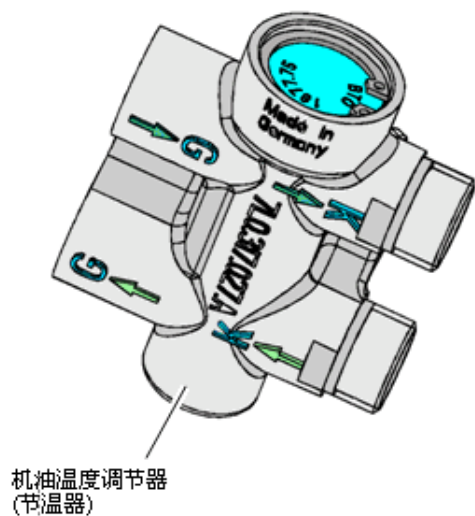
- 节温器调节 ATF 冷却
- 单独的 ATF- 冷却器(空气-机油-热交换器)



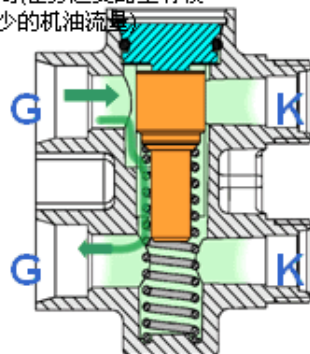
2)ATF 油冷却节温器

G =来自或去往变速器

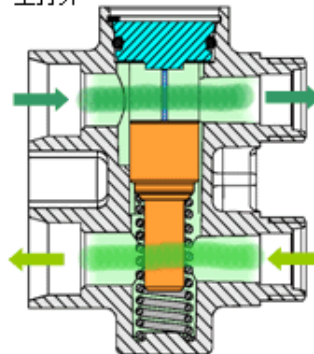
K =来自或去往冷却器



机油温度调节器已关闭(在旁通支路上有较少的机油流量)

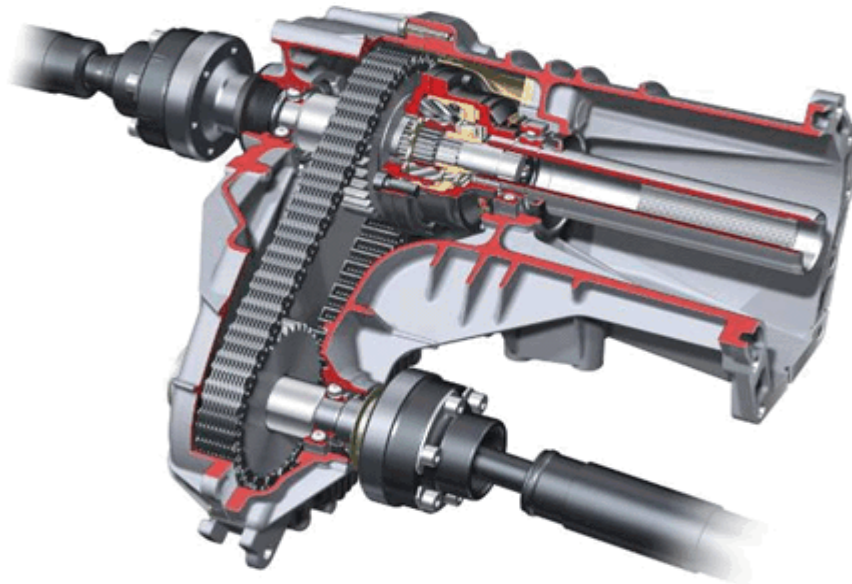


机油温度调节器已完全打开

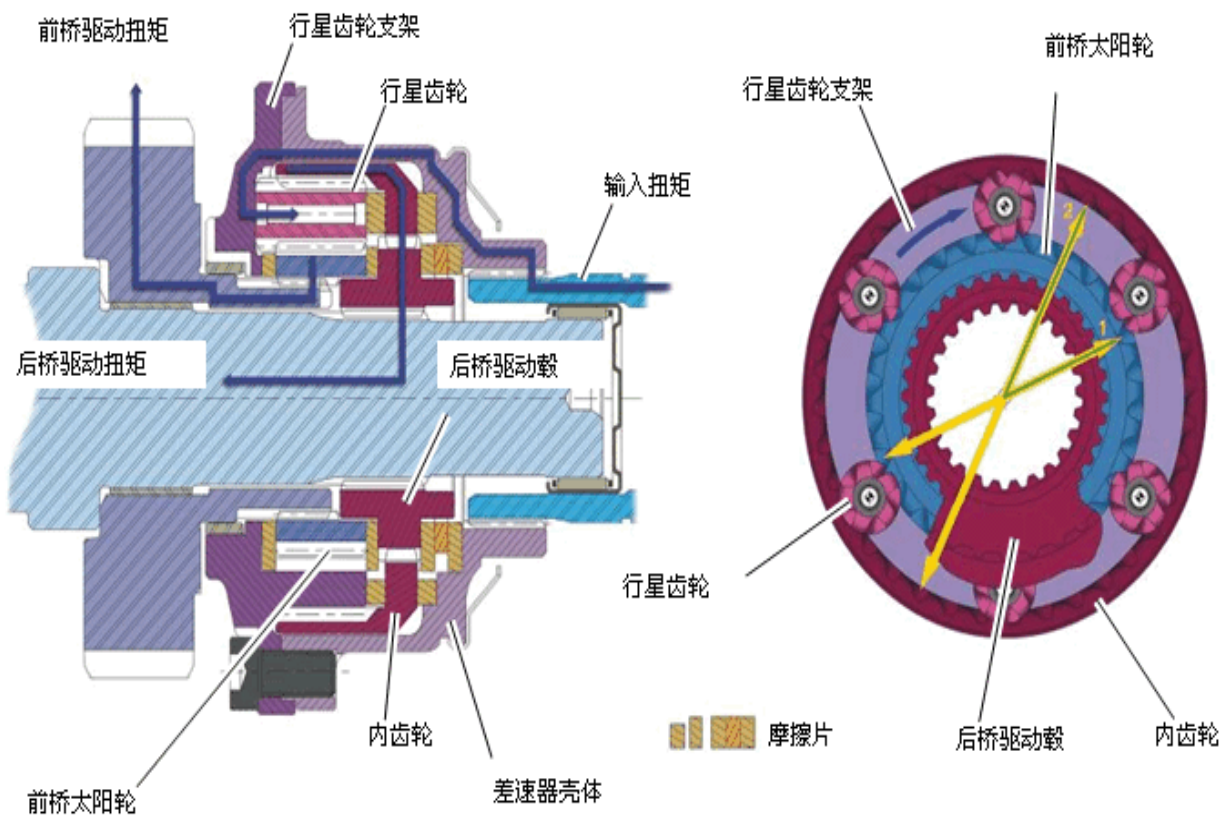


3.2 分动器 0AQ

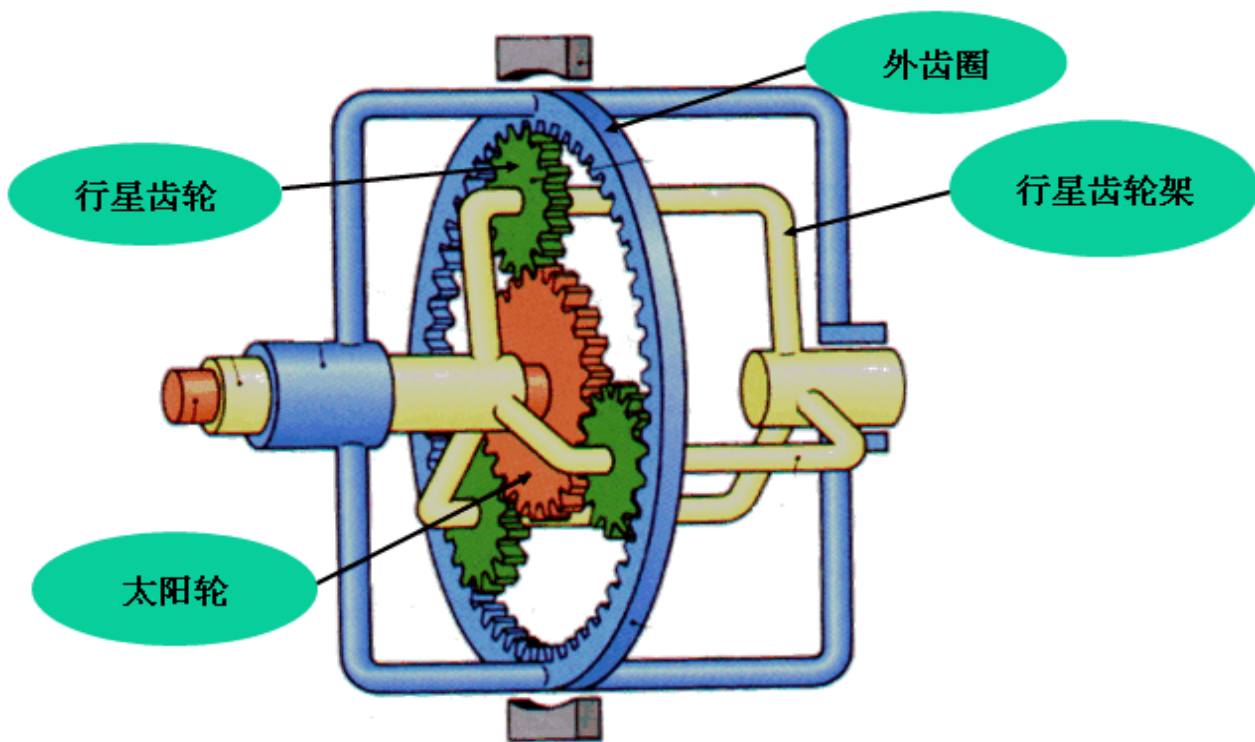
- 1).最新一代差速器，带有非对称式动态扭矩分配装置
- 2).与 ESP 的所有驾驶动态调节系统都能兼容
- 3).纯机械式工作系统，可靠性高
- 4).可用于发动机扭矩高达 750 Nm 的场合
- 5).重约 31 kg ，所以单位马力重量很低
- 6).免维护，终生不必换机油



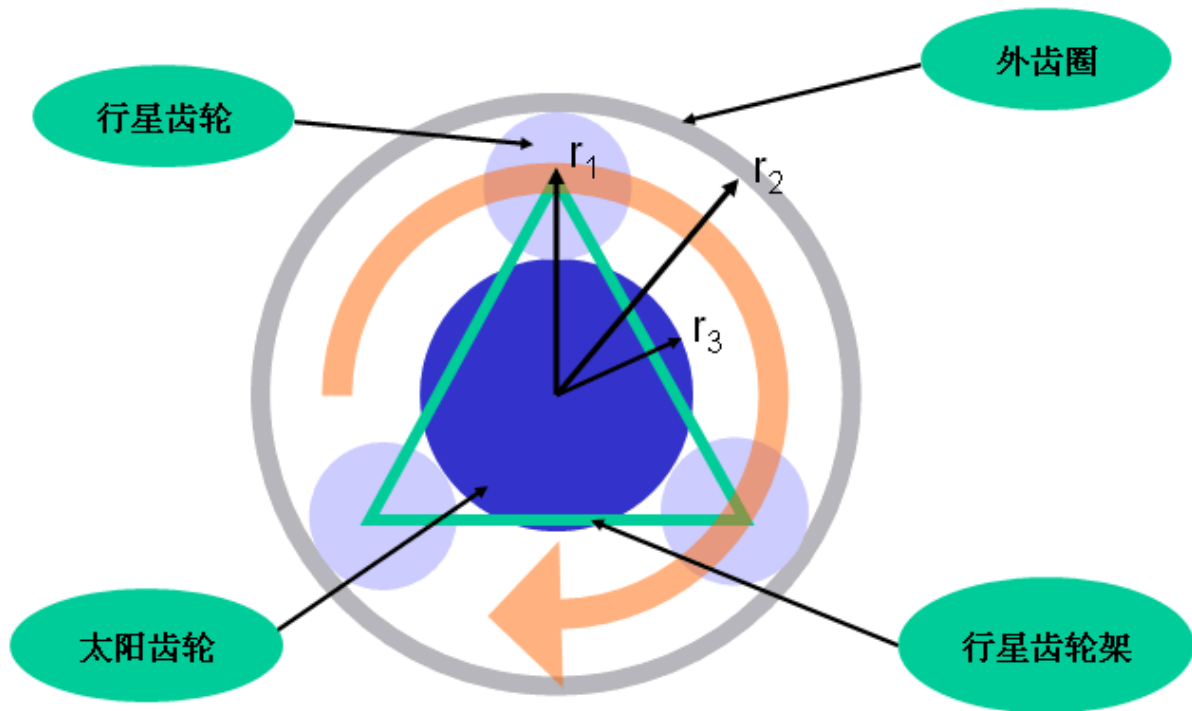
3.3 非对称基本分配装置



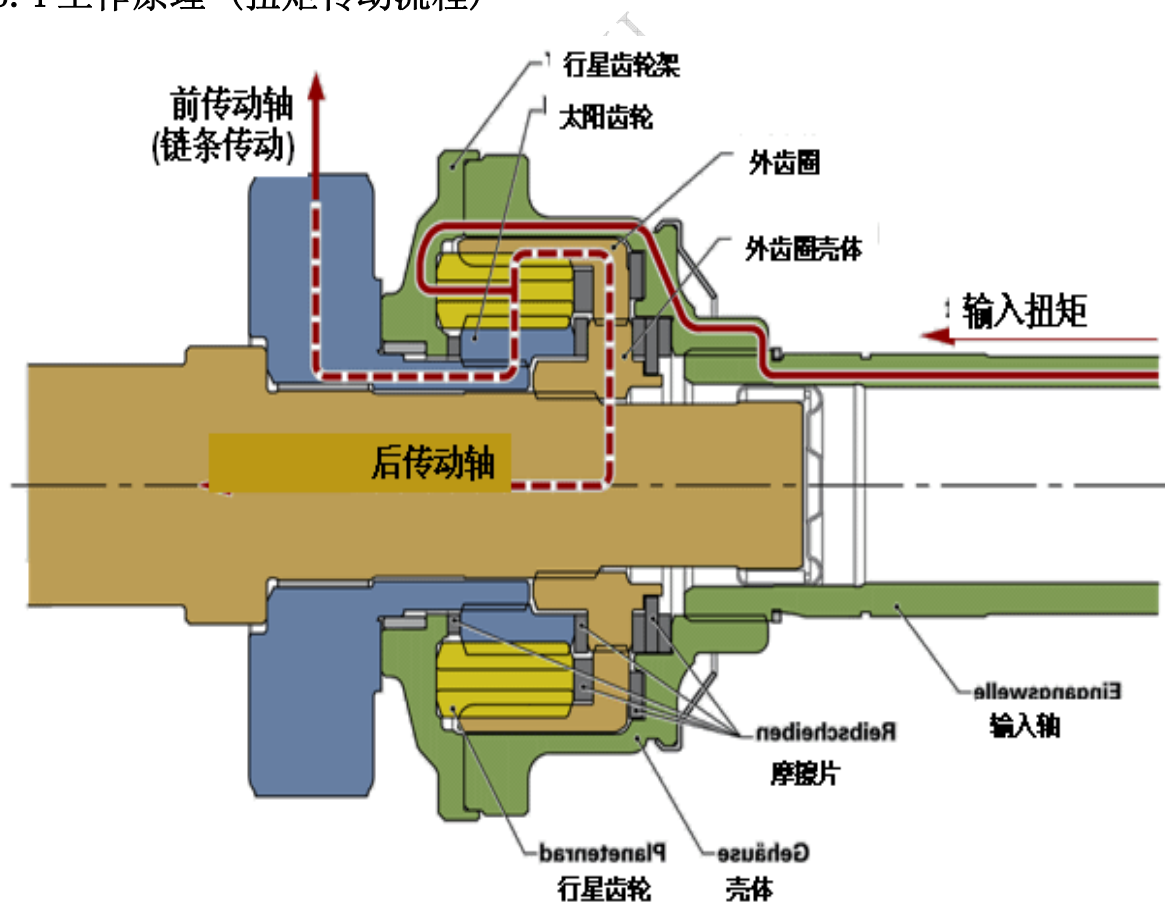
1).行星齿轮



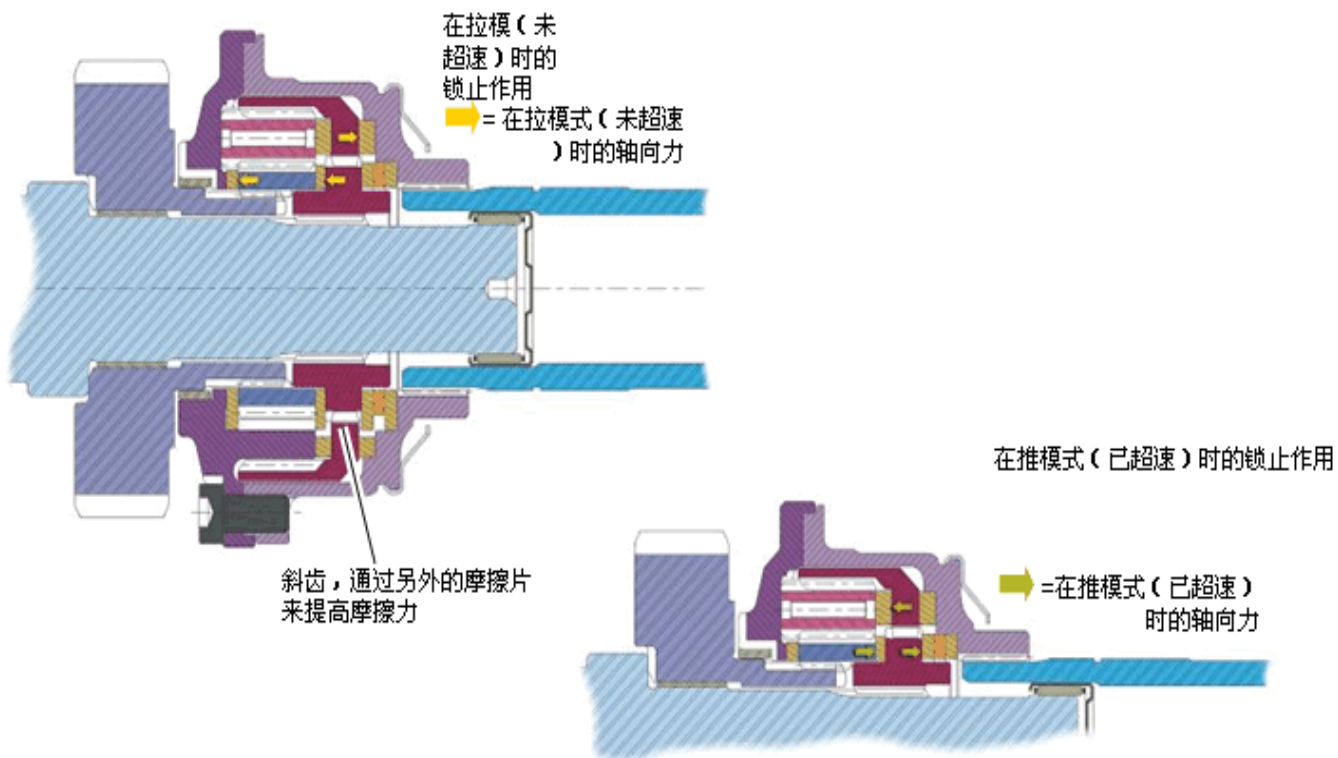
2).行星齿轮



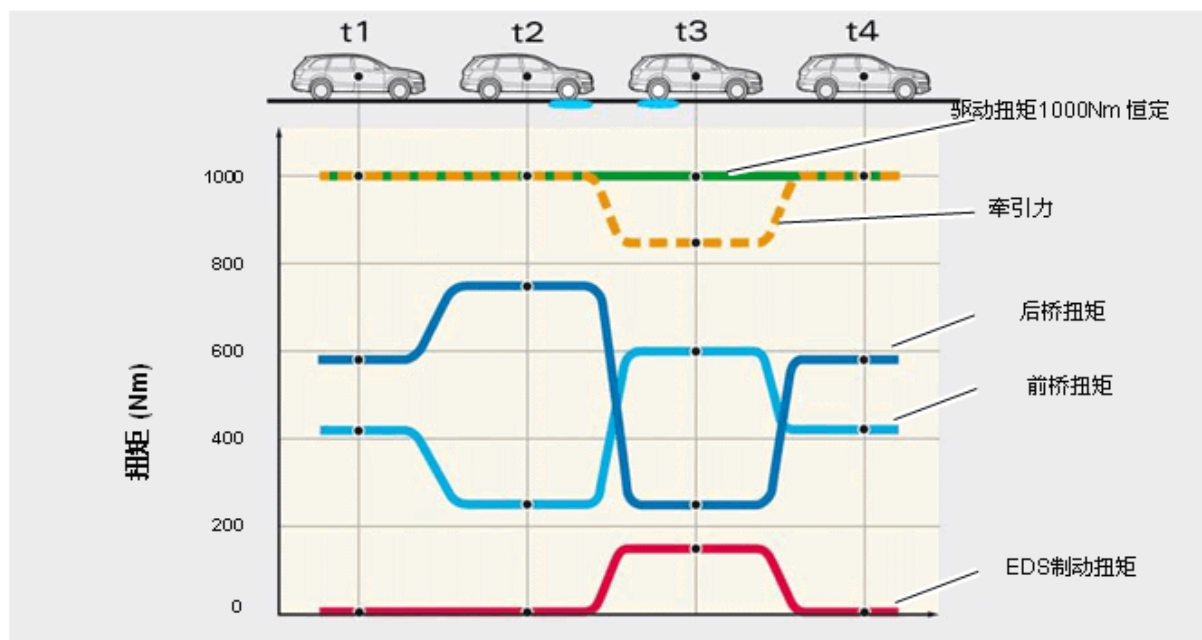
3.4 工作原理（扭矩传动流程）



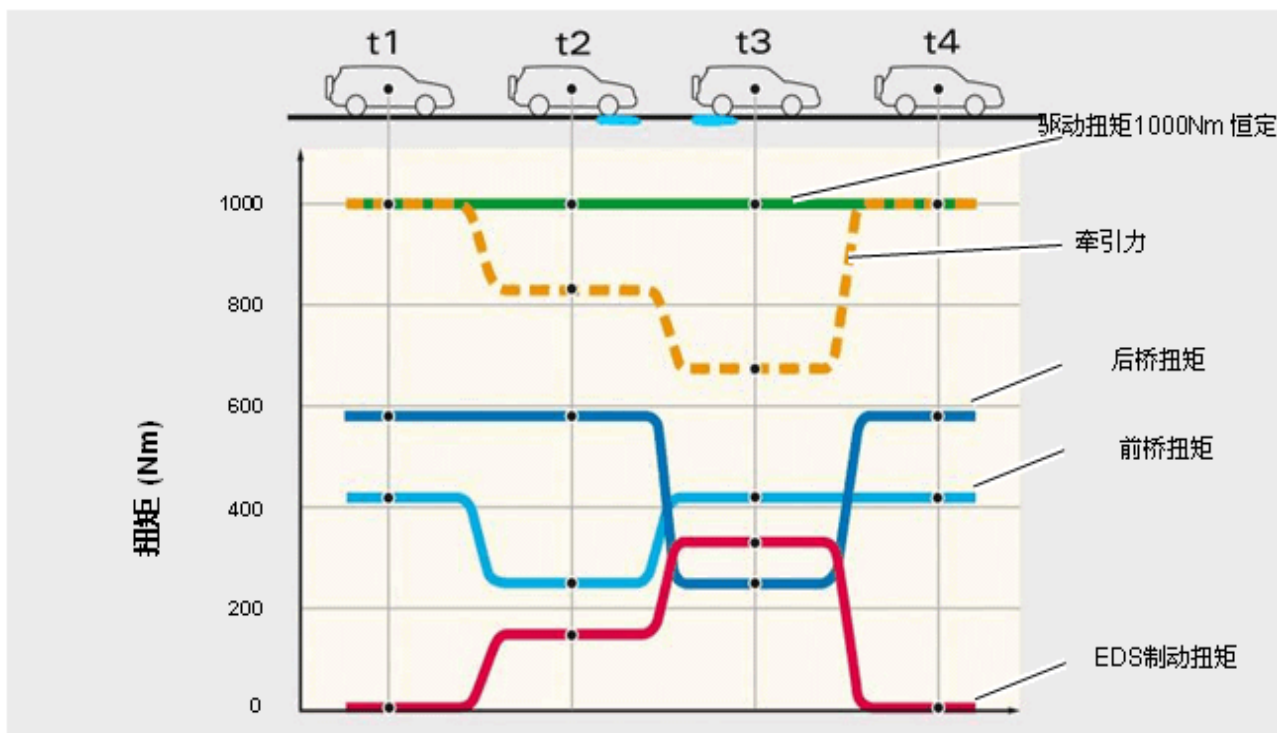
3.5 非对称-动态扭矩分配



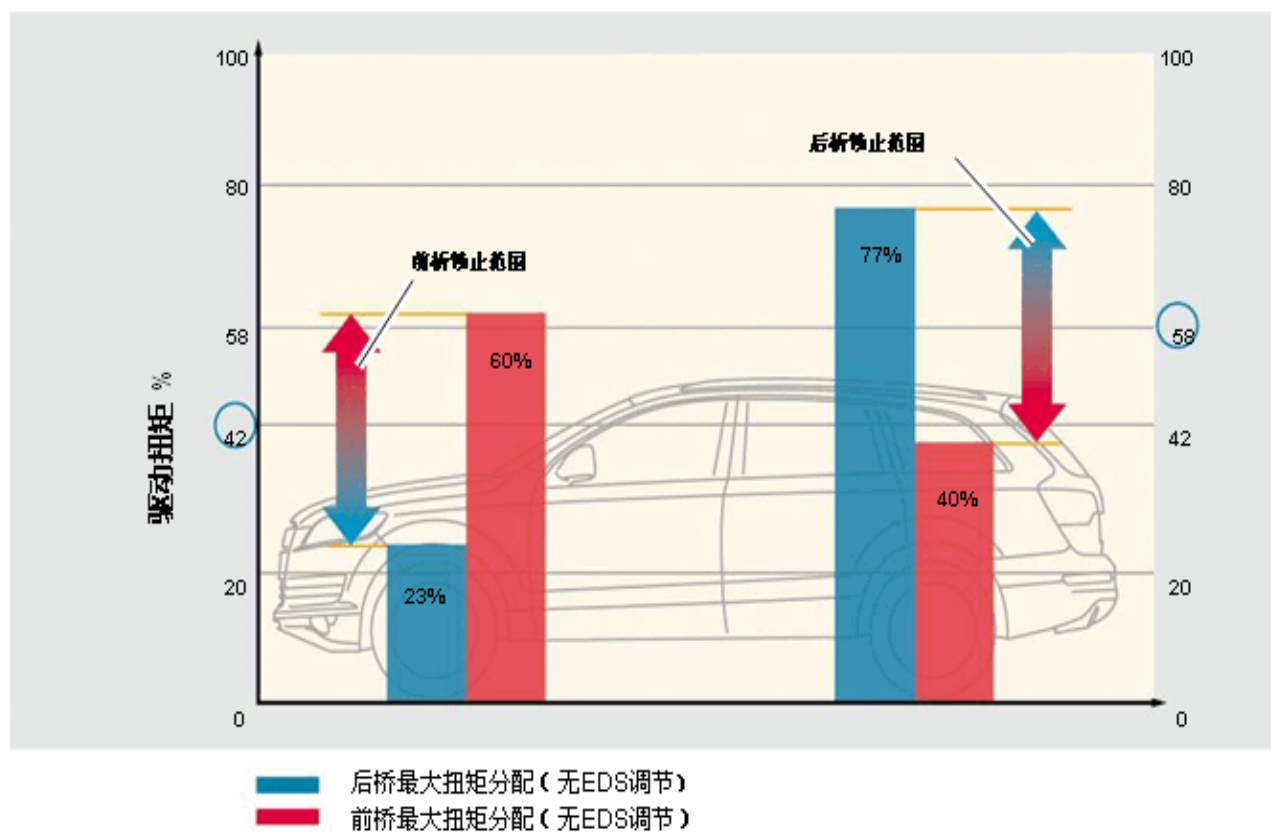
3.6 动态扭矩分配示例



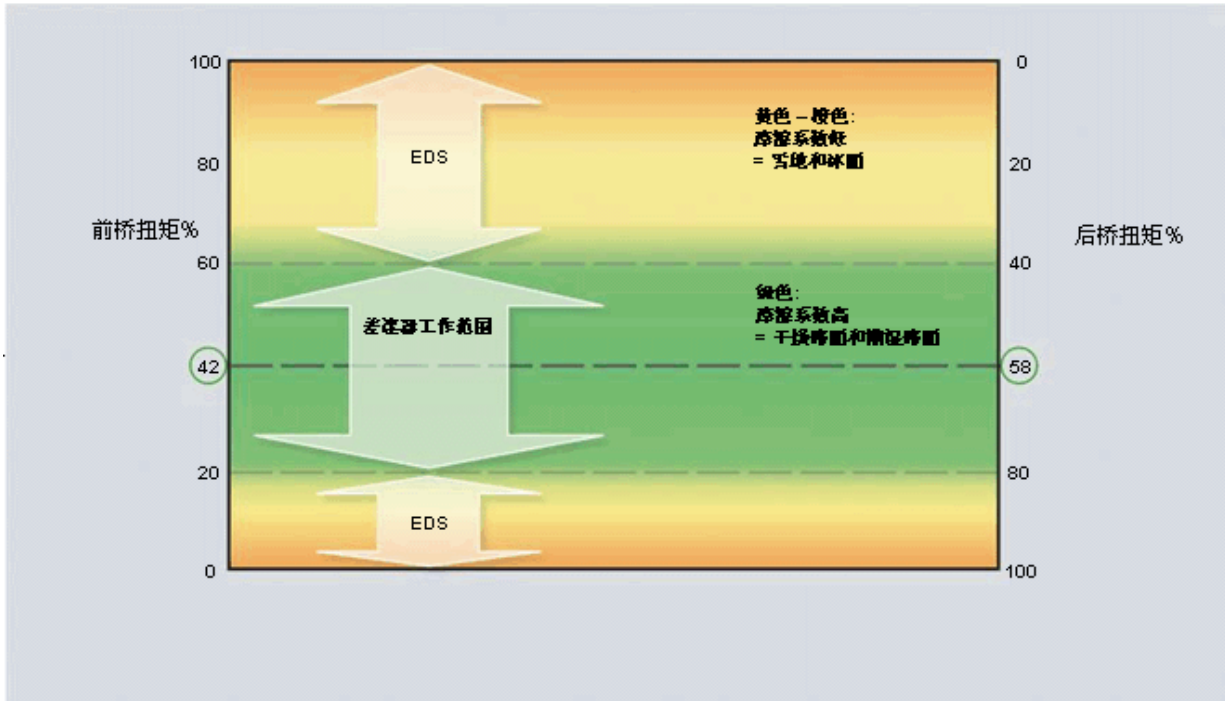
3.7 静态扭矩分配示例



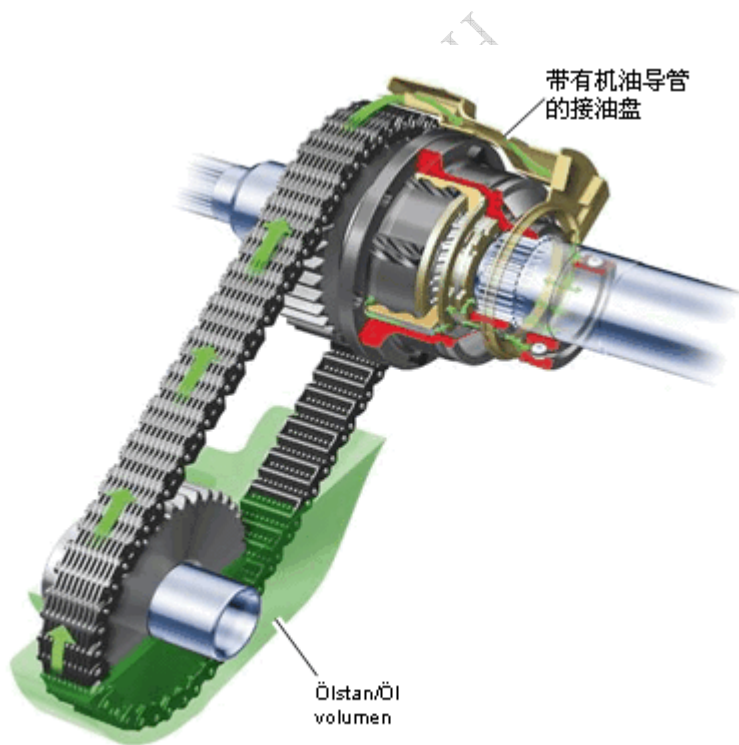
3.8 非对称式动态扭矩分配



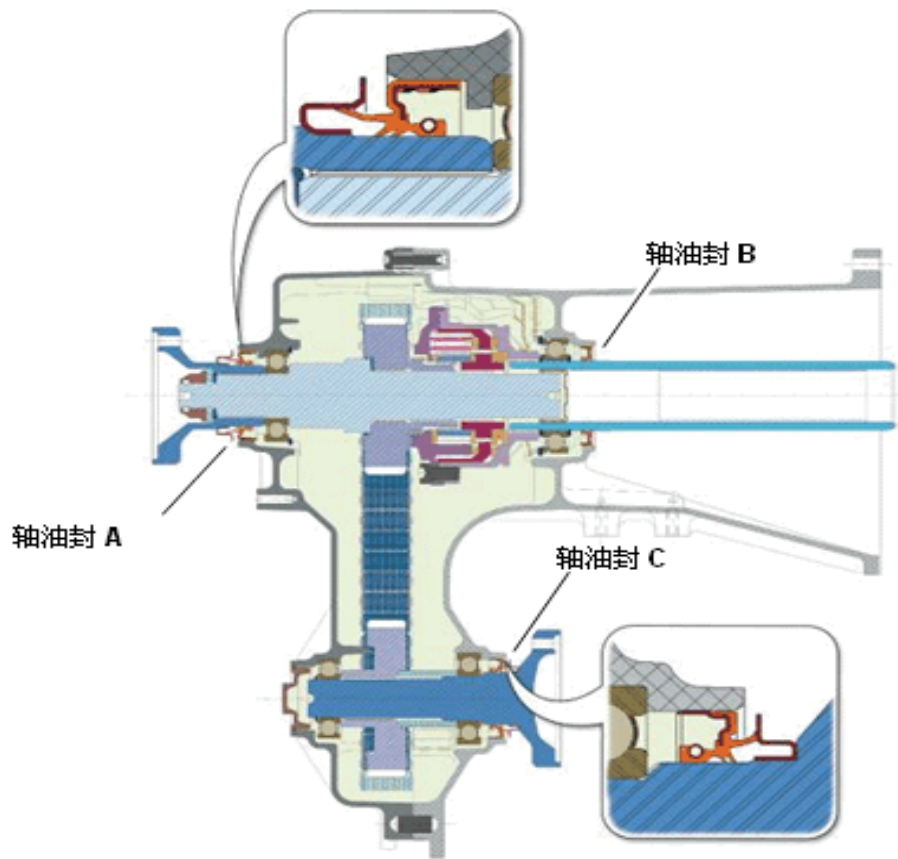
3.9 非对称式动态扭矩分配



3.10 润滑

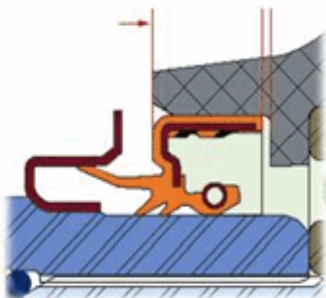


1). 机油/密封

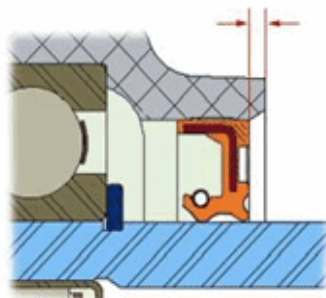


2). 机油/密封

生产上用的



轴油封 A



轴油封 B



轴油封 C

售后服务中用的

