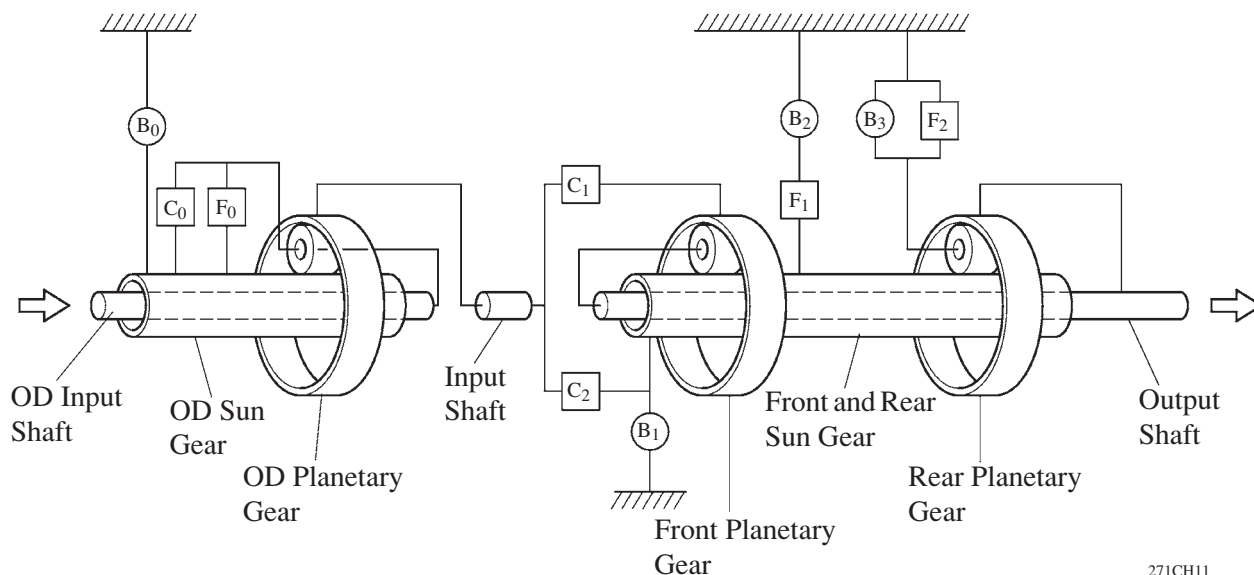


PLANETARY GEAR UNIT

1. Construction

The gear train consists of three multi-plate clutches, three multi-plate brakes, a single band type brake, three one-way clutches, and three planetary gear sets each consisting of a sun gear, pinion gear and a ring gear.



2. Function of Component

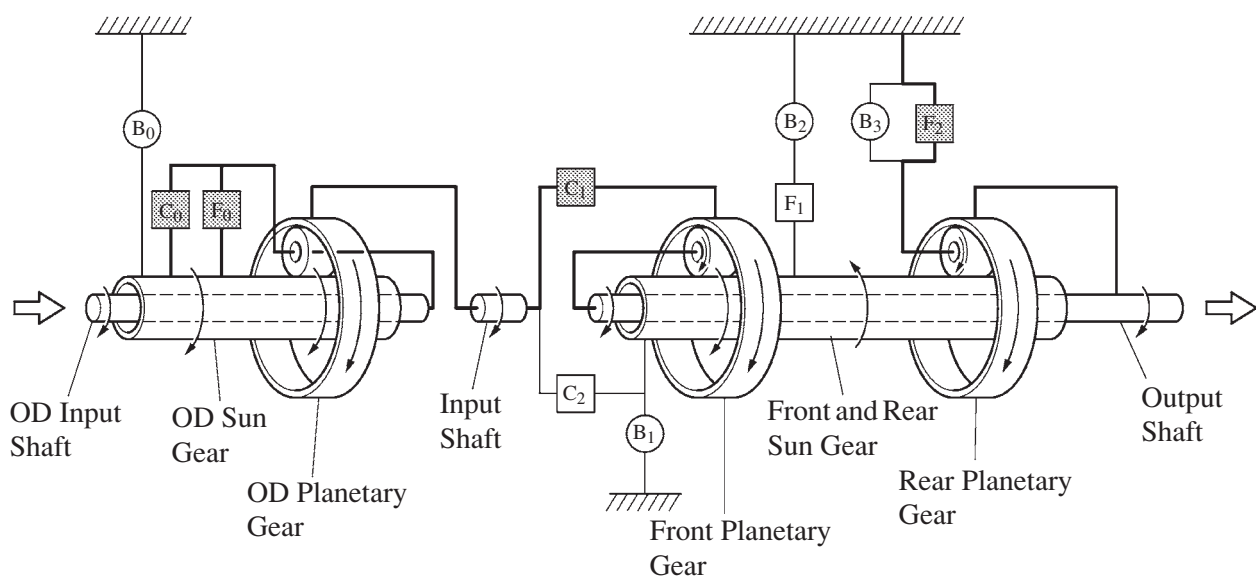
Component		Function
C ₀	OD Direct Clutch	Connects OD planetary sun gear and OD planetary carrier.
C ₁	Forward	Connects input shaft and front planetary ring gear.
C ₂	Direct Clutch	Connects input shaft and front and rear planetary sun gear.
B ₀	OD Brake	Prevents OD planetary sun gear from turning either clockwise or counterclockwise.
B ₁	2nd Coast Brake	Prevents front and rear sun gear from turning either clockwise or counterclockwise.
B ₂	2nd Brake	Prevents outer race of F ₁ from turning either clockwise or counterclockwise, thus preventing front and rear sun gear from turning counterclockwise.
B ₃	1st & Reverse Brake	Prevents rear planetary carrier from turning either clockwise or counterclockwise.
F ₀	OD One-Way Clutch	When engine power is transmitted to OD input shaft, connects OD planetary sun gear and planetary carrier.
F ₁	No.1 One-Way Clutch	When B ₂ is operating, prevents front and rear planetary sun gear from turning counterclockwise.
F ₂	No.2 One-Way Clutch	Prevents rear planetary carrier from turning counterclockwise.
Planetary Gears		Change power transmission route according to clutch and brake operation, and increase or decrease output shaft revolution accordingly.

3. Transmission Power Flow

Operating Conditions

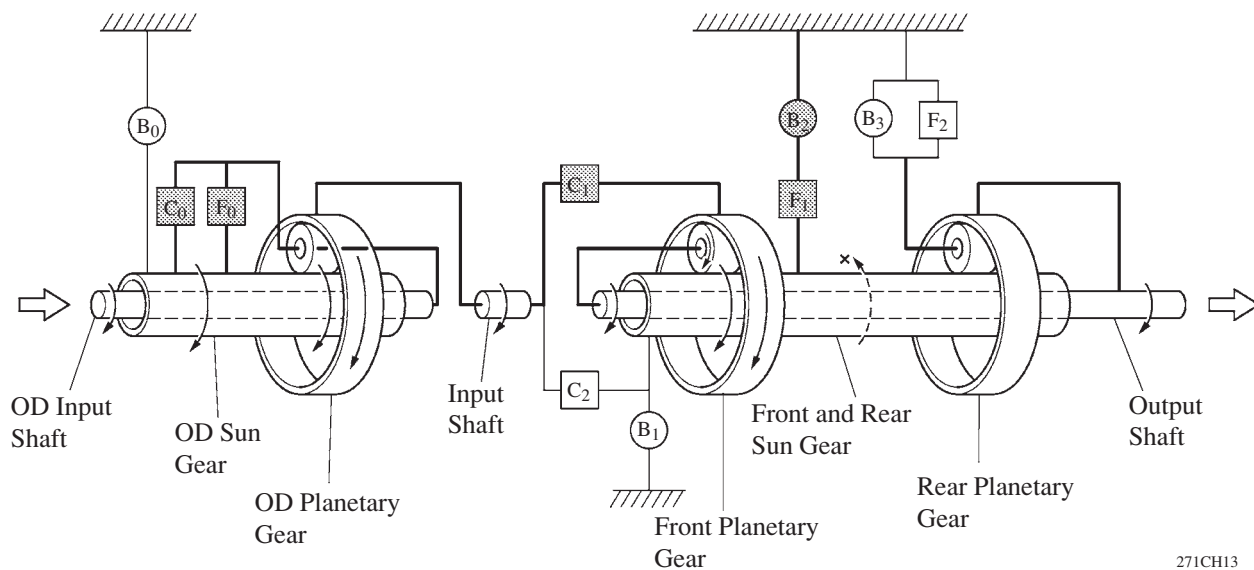
Shift Lever Position	Gear	No. 1 Solenoid Valve	No. 2 Solenoid Valve	Clutch			Brake				One-way Clutch		
				C ₀	C ₁	C ₂	B ₀	B ₁	B ₂	B ₃	F ₀	F ₁	F ₂
P	Park	ON		○									
R	Reverse	ON		○		○				○	○		
N	Neutral	ON		○									
D	1st	ON		○	○						○		○
	2nd	ON	ON	○	○				○		○	○	
	3rd		ON	○	○	○			○		○		
	4th				○	○	○		○				
2	1st	ON		○	○						○		○
	2nd	ON	ON	○	○			○	○		○	○	
L	1st	ON		○	○					○	○		○

1st Gear (D or 2 Position)

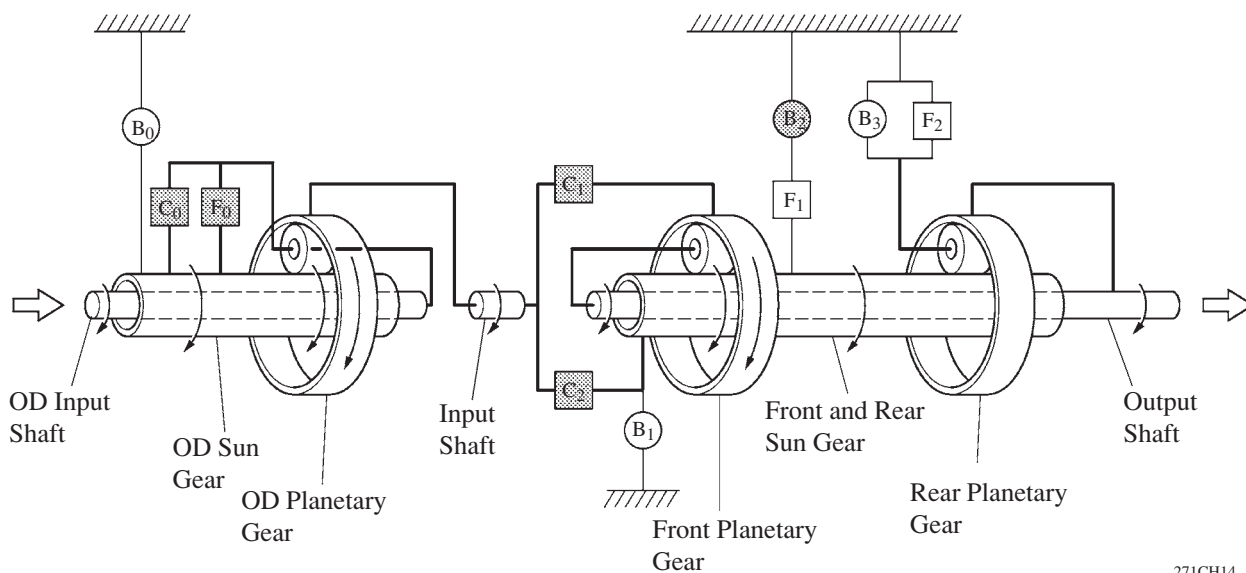


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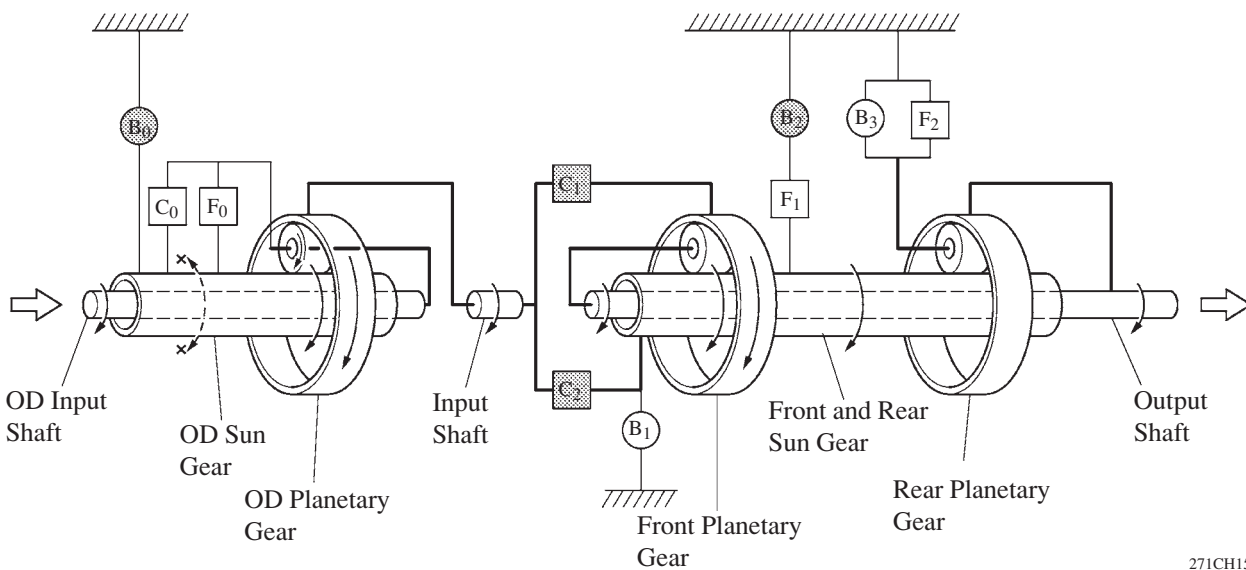
2nd Gear (D Position)

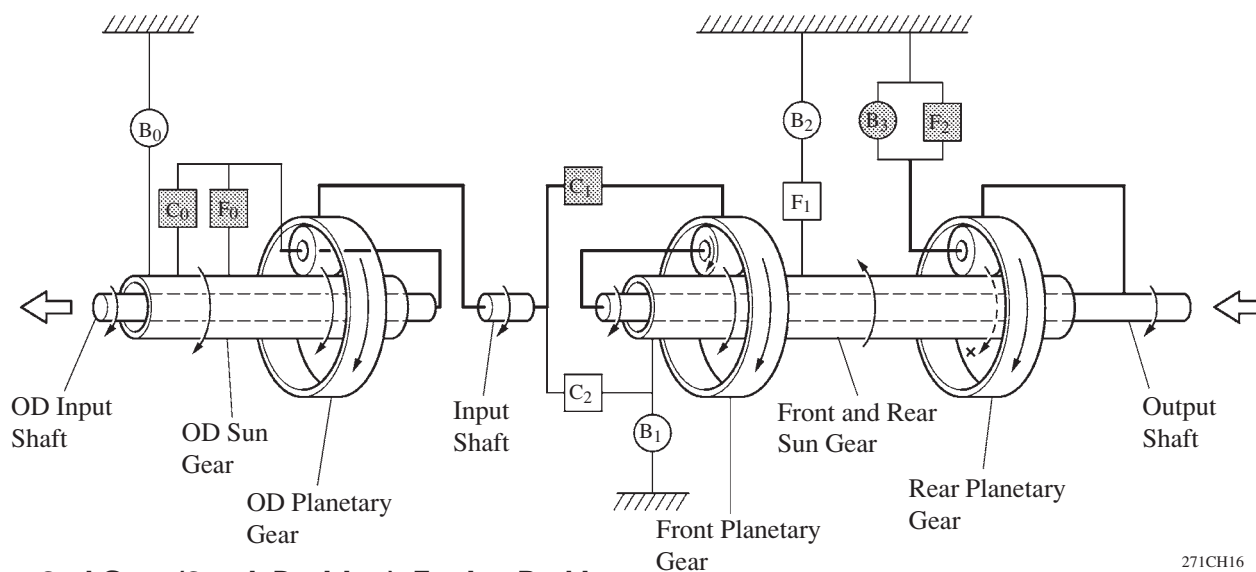
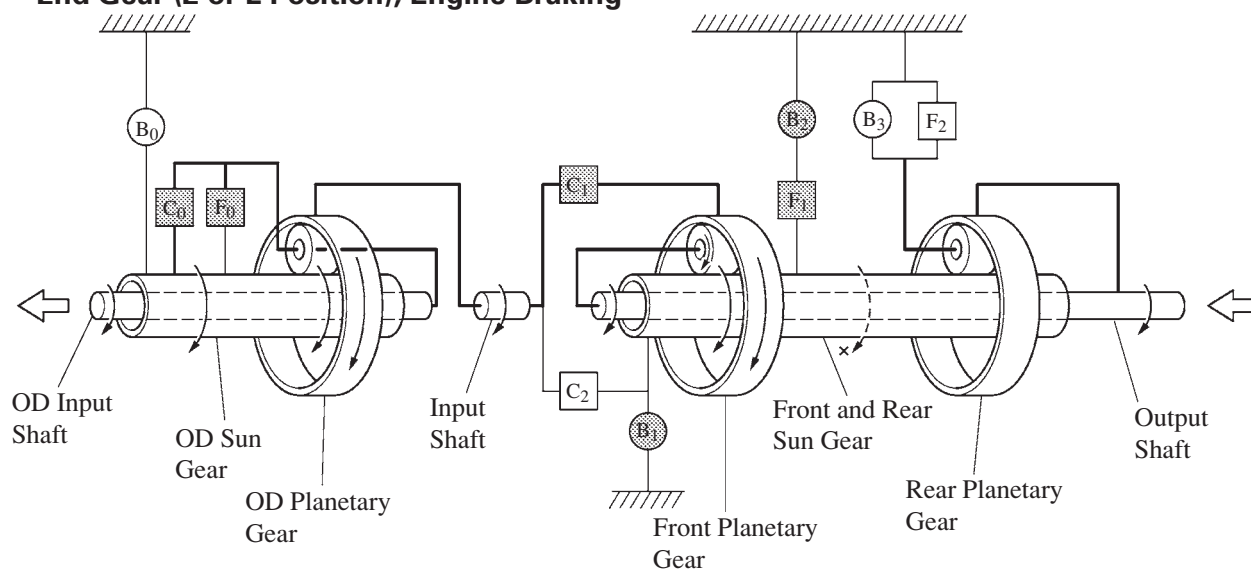


3rd Gear (D or 2 Position)



4th Gear (D Position)



1st Gear (L Position), Engine Braking**2nd Gear (2 or L Position), Engine Braking****Reverse Gear (R Position)**