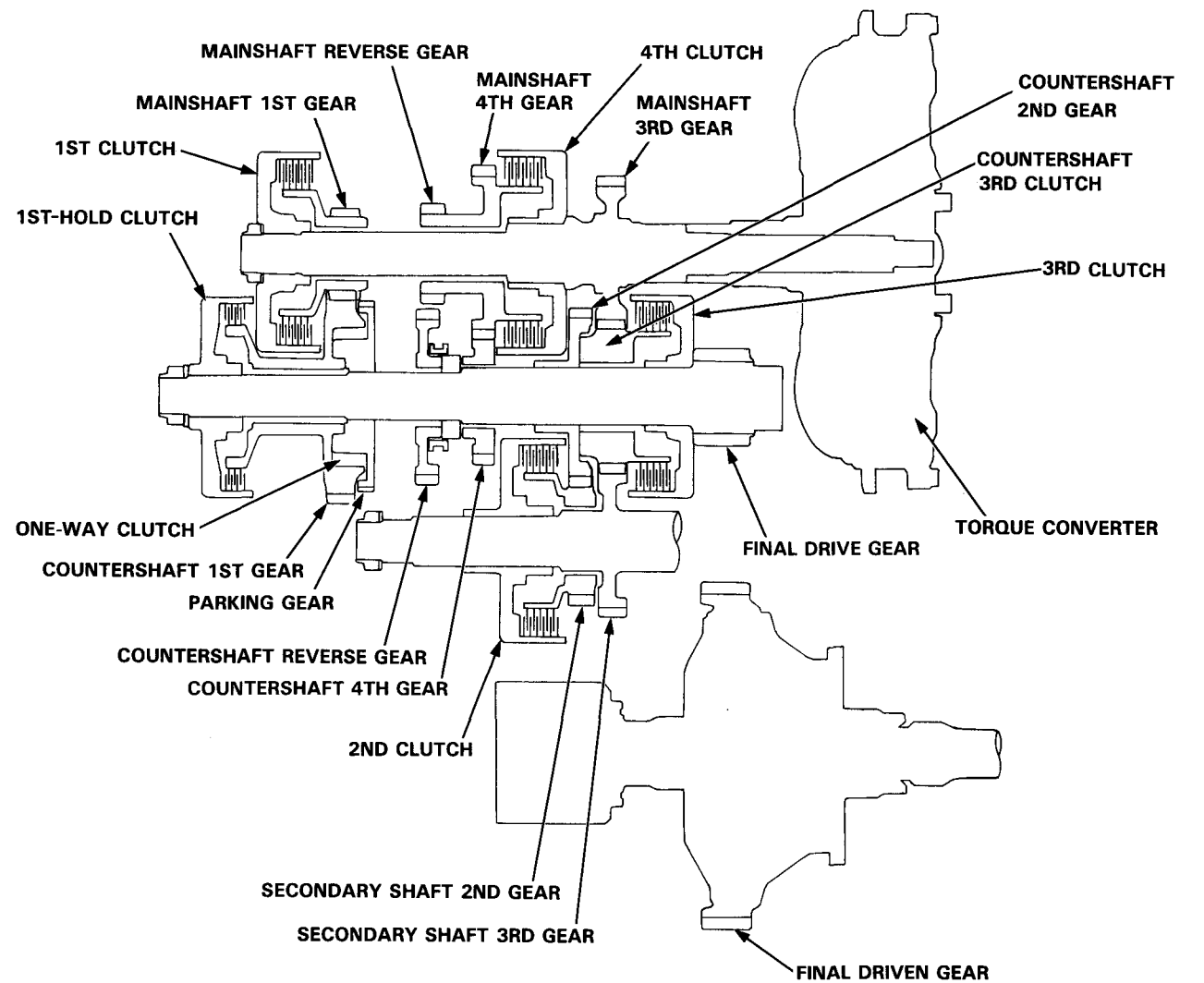


Description

Power Flow

PART RANGE	TORQUE CON- VERTER	1ST GEAR 1ST HOLD CLUTCH	1ST GEAR 1ST CLUTCH	1ST GEAR ONE-WAY CLUTCH	2ND GEAR 2ND CLUTCH	3RD GEAR 3RD CLUTCH	4th		REVERSE GEAR	PARKING GEAR
							GEAR	CLUTCH		
P	○	x	x	x	x	x	x	x	x	○
R	○	x	x	x	x	x	x	○	○	x
N	○	x	x	x	x	x	x	x	x	x
D 3/M	1ST	○	x	○	x	x	x	x	x	x
	2ND	○	x	○*	x	x	x	x	x	x
	3RD	○	x	○*	x	○	x	x	x	x
	4TH	○	x	○*	x	x	○	○	x	x
2	○	x	○*	x	○	x	x	x	x	x
1	○	○	○	x	x	x	x	x	x	x

○: Operates, x: Doesn't operate, *: Although the 1st clutch engages, driving power is not transmitted as the one-way clutch slips.





1st Speed in **1** Position

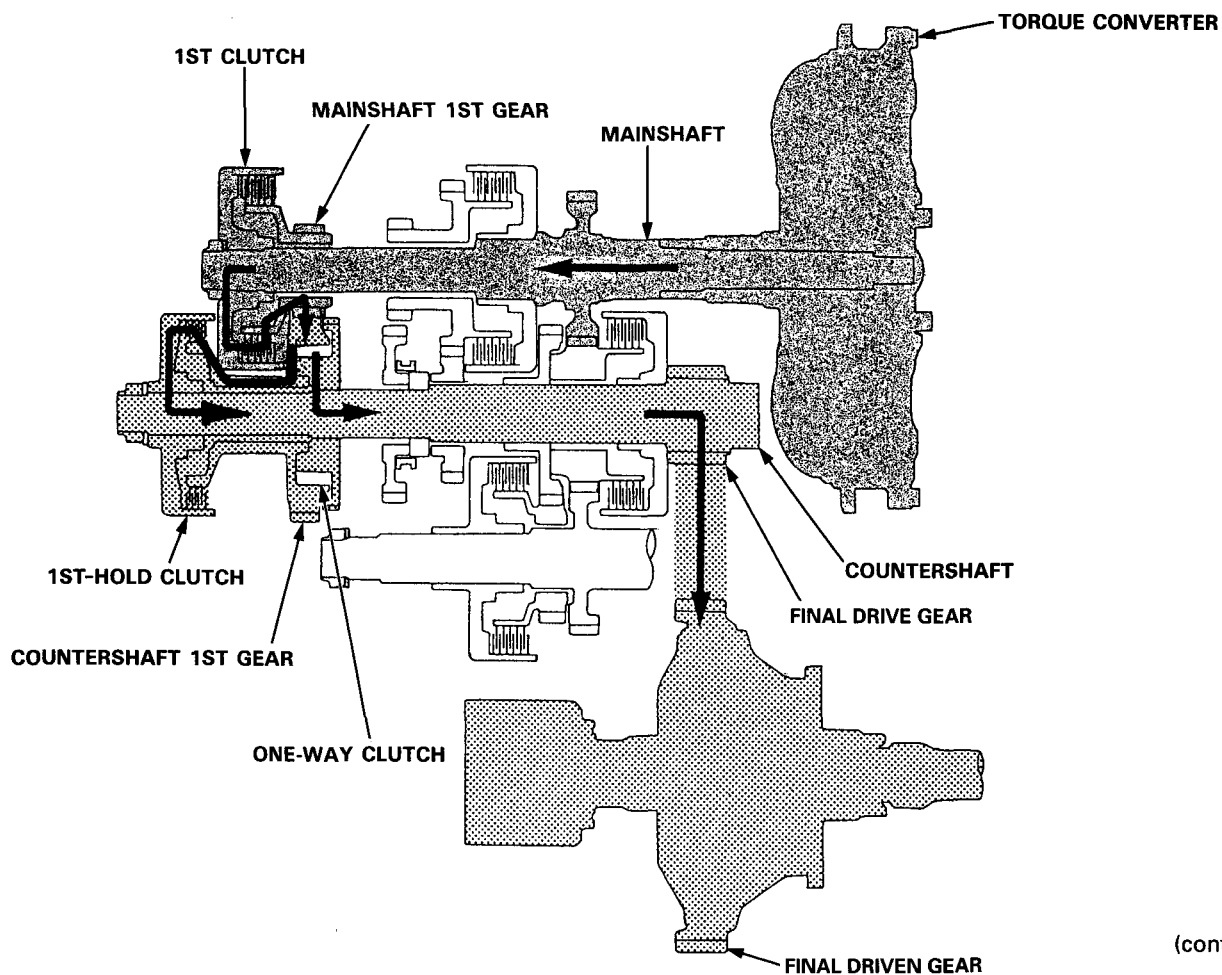
At **1** position, hydraulic pressure is applied to the 1st clutch and to the 1st-hold clutch.

The power flow when accelerating is as follows;

1. Hydraulic pressure is applied to the 1st clutch on the mainshaft, and power is transmitted via the 1st clutch to the mainshaft 1st gear.
2. Power transmitted to the mainshaft 1st gear is conveyed via the countershaft 1st gear to the one-way clutch on the inside of the countershaft 1st gear. The one-way clutch is used to drive the countershaft.
3. Power is transmitted to the final drive gear and drives the final driven gear. Hydraulic pressure is applied to the 1st-hold clutch, but the countershaft is rotated by the one-way clutch.

The power flow when decelerating is as follows;

1. Rolling resistance from the road surface through the rear wheels to the final drive gear, then to the countershaft 1st gear via the 1st-hold clutch, which is applied during deceleration.
2. The one-way clutch becomes free because the countershaft is rotating in reverse.
3. The counterforce conveyed to the countershaft 1st gear turns the mainshaft 1st gear. Since hydraulic pressure is also applied to the 1st clutch, counterforce is also transmitted to the mainshaft. As a result, engine braking can be obtained with 1st gear.



(cont'd)

Description

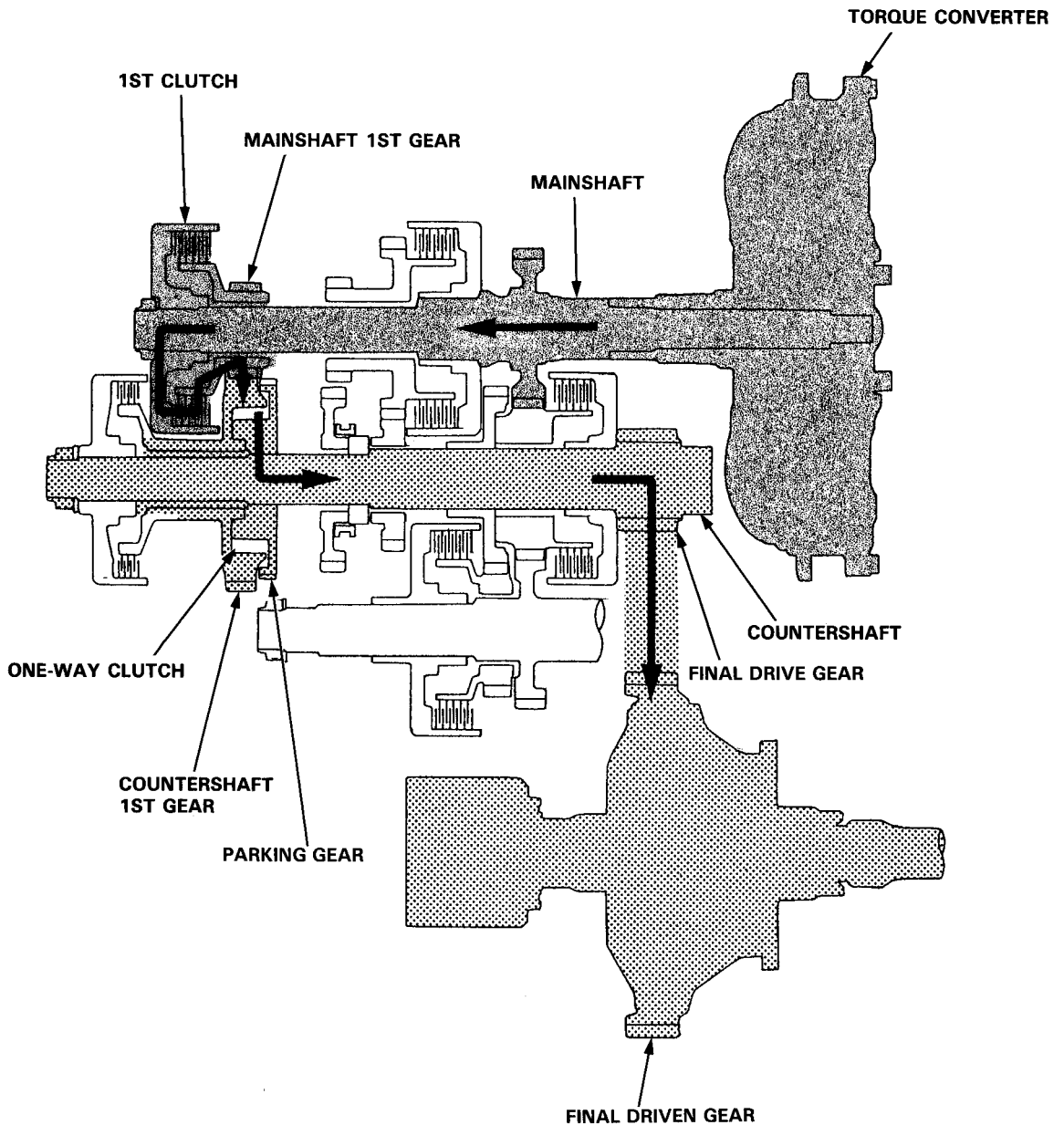
Power Flow (cont'd)

1st Gear in **3/M** and **D** positions

In **D** position, the optimum gear is automatically selected from the gear ratios of 1st, 2nd, 3rd, and 4th speeds, according to conditions such as the balance between throttle opening (engine load) and vehicle speed.

1. Hydraulic pressure is applied to the 1st clutch, which rotates together with the mainshaft, and the mainshaft 1st gear.
2. Power is transmitted to the countershaft 1st gear, and it drives the countershaft via the one-way clutch.
3. Power is transmitted to the final drive gear, and it drives the final driven gear.

NOTE: Hydraulic pressure is not applied to the 1st-hold clutch in except in **1** position.

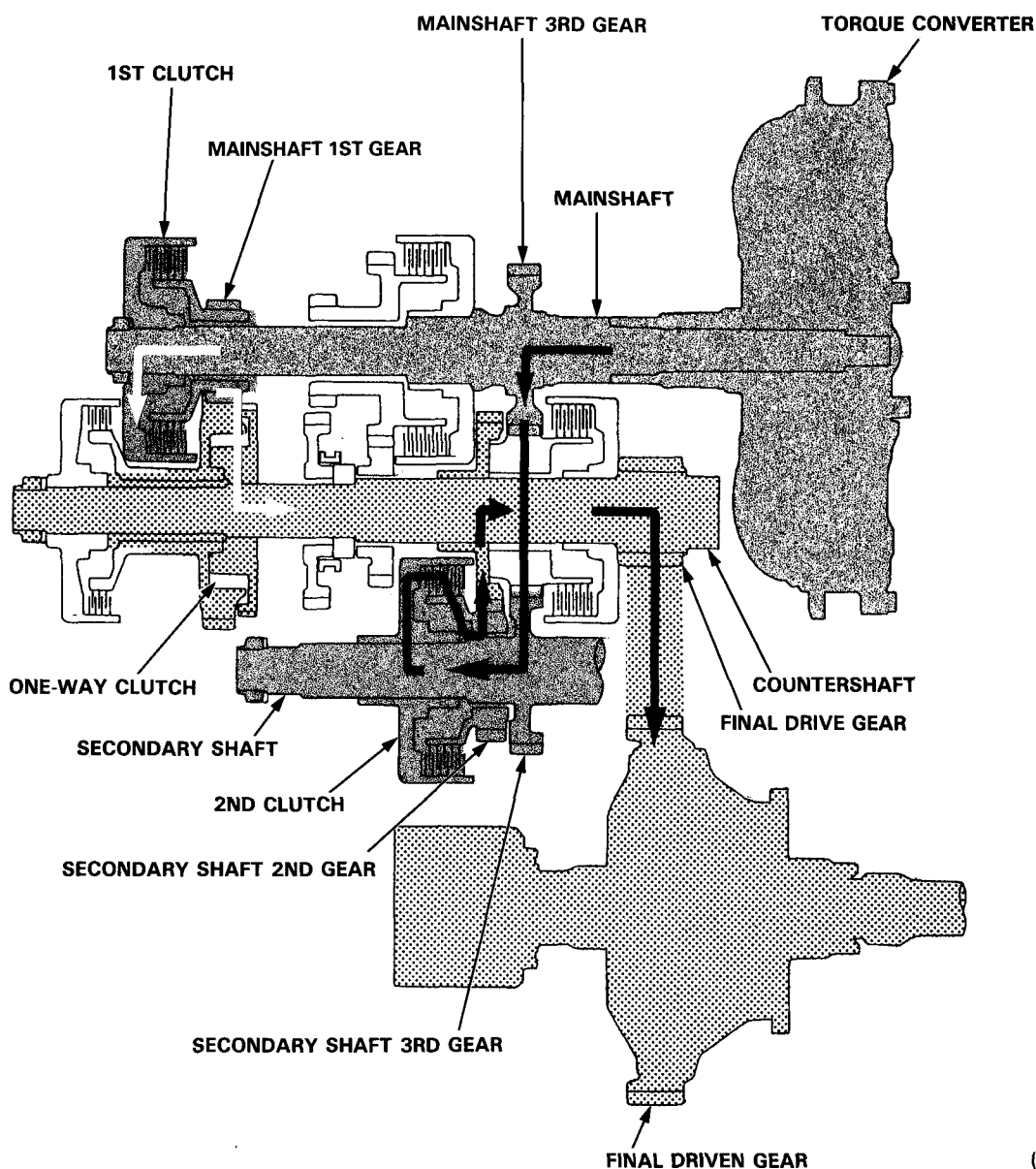




2nd Gear in **[2]**, **[3/M]** and **[D]** Positions

1. Power from the mainshaft 3rd gear drives the countershaft 3rd gear. Since there is no hydraulic pressure to the 3rd clutch, the countershaft 3rd gear turns freely and drives the secondary shaft 3rd gear.
2. Power is also transmitted to the secondary shaft 2nd gear because hydraulic pressure is applied to the 2nd clutch.
3. The secondary shaft 2nd gear drives the countershaft 2nd gear. Power is transmitted to the final drive gear and drives the final driven gear.

NOTE: Hydraulic pressure is also applied to the 1st clutch, but since the rotation speed of 2nd gear exceeds 1st gear speed, power from 1st gear is cut off at the one-way clutch.



(cont'd)

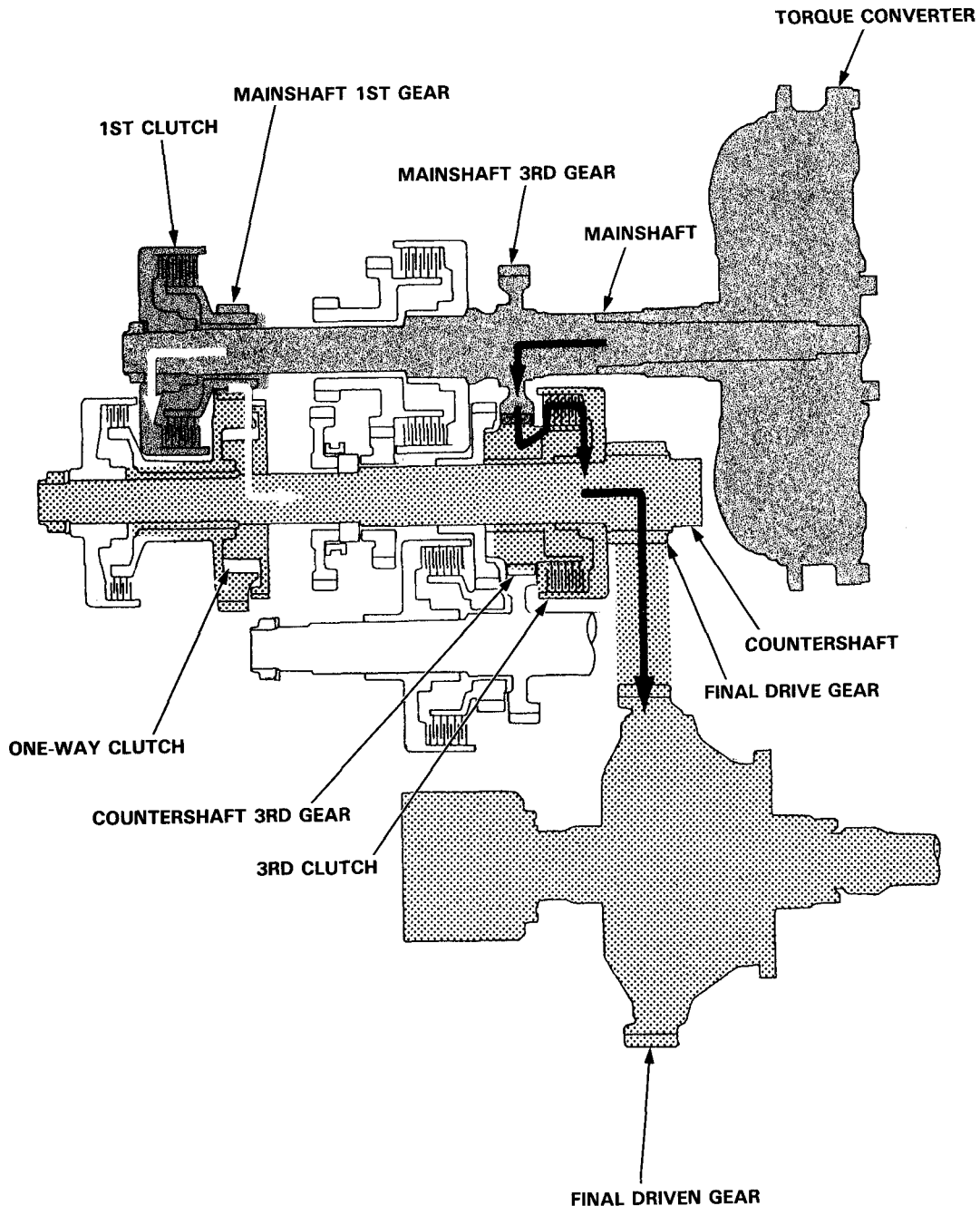
Description

Power Flow (cont'd)

3rd Gear in **3/M** and **D** Positions

1. Hydraulic pressure is applied to the 3rd clutch. Power from the mainshaft 3rd is transmitted to the countershaft 3rd gear.
2. Power is transmitted to the final drive gear and drives the final driven gear.

NOTE: Hydraulic pressure is also applied to the 1st clutch, but since the rotation speed of the 3rd gear exceeds 1st gear speed, power from 1st gear is cut off at the one-way clutch.





4th Gear in **3/M** and **D** Positions

1. Hydraulic pressure is applied to the 4th clutch, which rotates together with the mainshaft, and the mainshaft 4th gear.
2. Power is transmitted through countershaft 4th gear to the countershaft.
3. Power is transmitted to the final drive gear and drives the final driven gear.

NOTE: Hydraulic pressure is also applied to the 1st clutch, but since the rotation speed of 4th gear exceeds 1st gear speed, power from 1st gear is cut off at the one-way clutch.

