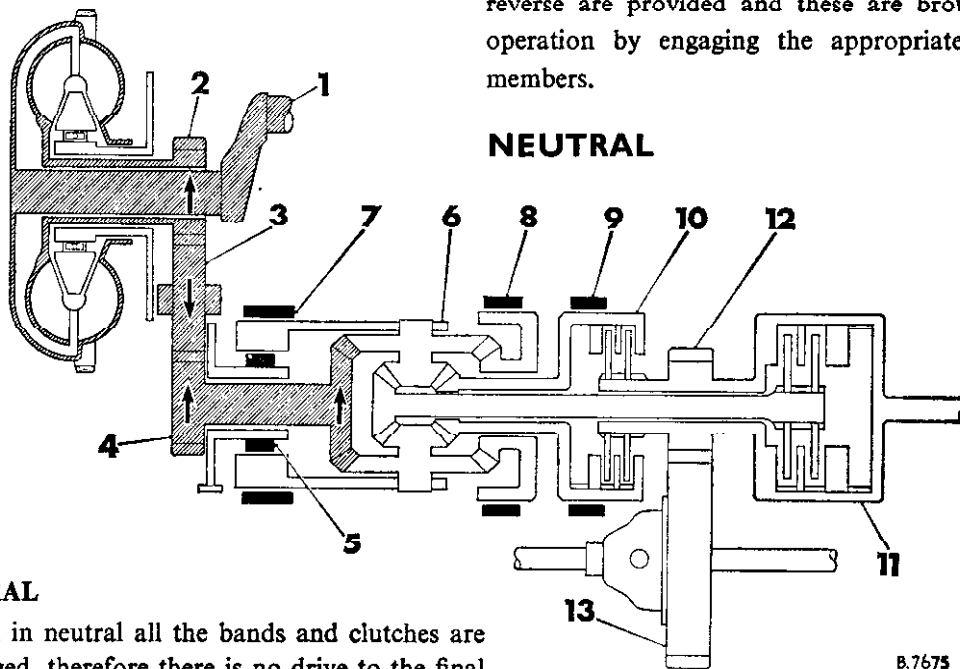


POWER FLOW DIAGRAMS (MECHANICAL)

The power flow diagrams indicate how the various ratios are obtained. Four speeds and reverse are provided and these are brought into operation by engaging the appropriate friction members.



NEUTRAL

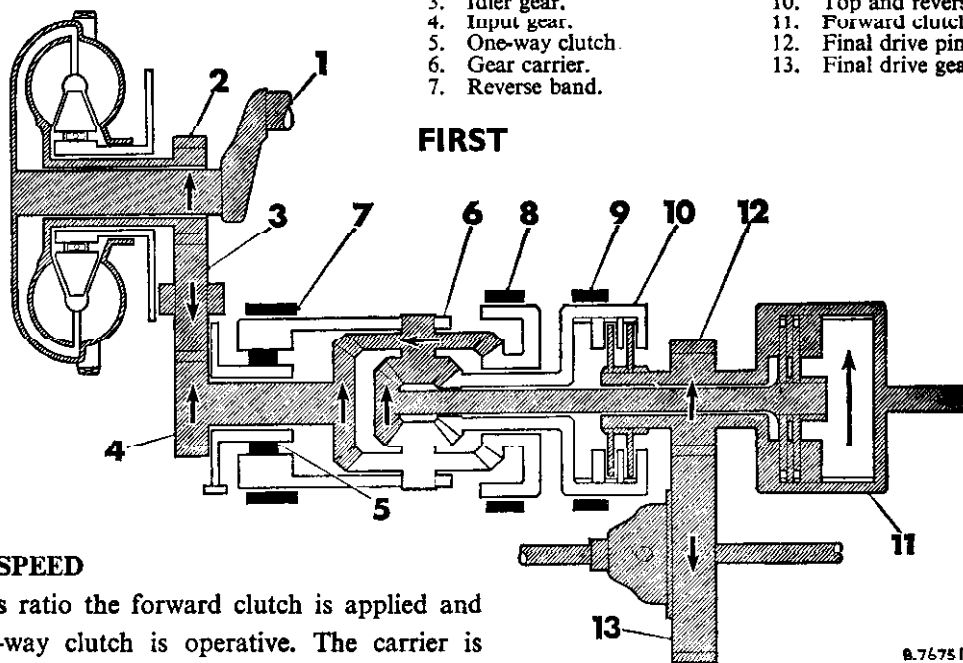
NEUTRAL

When in neutral all the bands and clutches are disengaged, therefore there is no drive to the final drive pinion.

B.7675

KEY TO COMPONENTS

- | | |
|---------------------------|-----------------------------|
| 1. Crankshaft | 8. Third gear band. |
| 2. Converter output gear. | 9. Second gear band. |
| 3. Idler gear. | 10. Top and reverse clutch. |
| 4. Input gear. | 11. Forward clutch. |
| 5. One-way clutch. | 12. Final drive pinion. |
| 6. Gear carrier. | 13. Final drive gear. |
| 7. Reverse band. | |



FIRST

FIRST SPEED

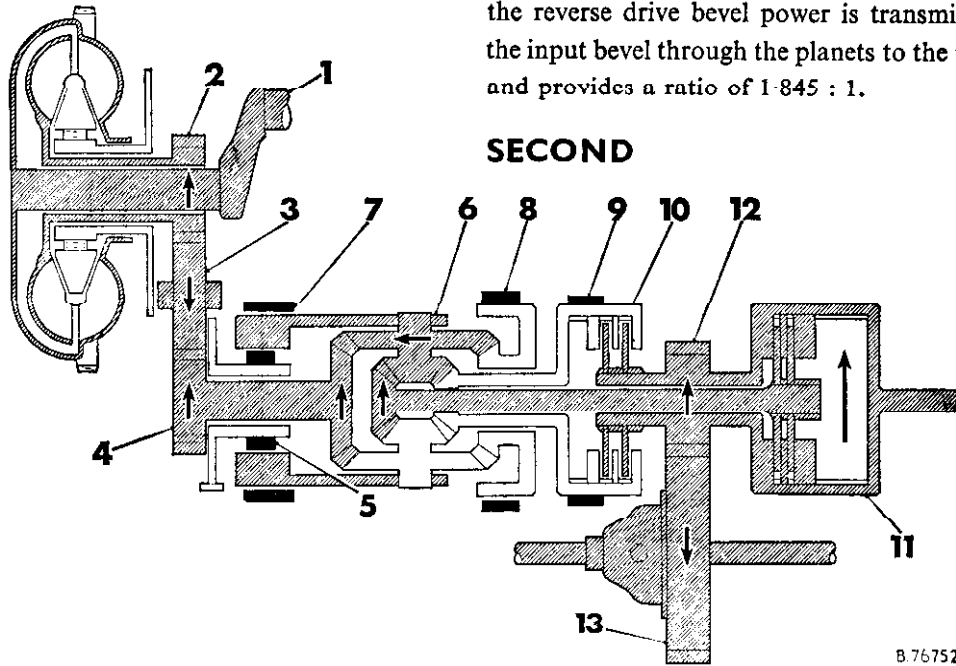
In this ratio the forward clutch is applied and the one-way clutch is operative. The carrier is stationary, its reaction being controlled by the one-way clutch. The input bevel drives the planet wheels and the planet pinions drive the forward output pinion and shaft. Thus power is transferred through the planet assemblies to the mainshaft, forward clutch, and the output gear, providing a ratio of 2.69 : 1.

B.76751

POWER FLOW DIAGRAMS (MECHANICAL)

SECOND SPEED

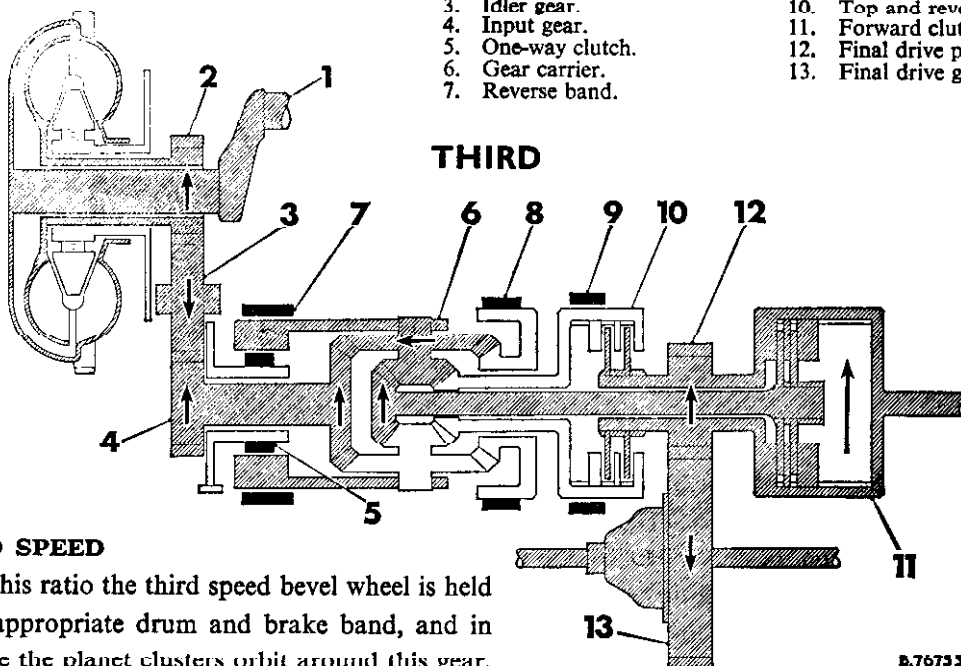
As for all forward gears the forward clutch remains engaged, and in addition the second speed brake band applied. This controls the reaction which is imposed on the reverse drive bevel when in this ratio. With the planet cluster orbiting around the reverse drive bevel power is transmitted from the input bevel through the planets to the mainshaft and provides a ratio of 1.845 : 1.



B.76752

KEY TO COMPONENTS

- | | |
|---------------------------|-----------------------------|
| 1. Crankshaft. | 8. Third gear band. |
| 2. Converter output gear. | 9. Second gear band. |
| 3. Idler gear. | 10. Top and reverse clutch. |
| 4. Input gear. | 11. Forward clutch. |
| 5. One-way clutch. | 12. Final drive pinion. |
| 6. Gear carrier. | 13. Final drive gear. |
| 7. Reverse band. | |



B.76753

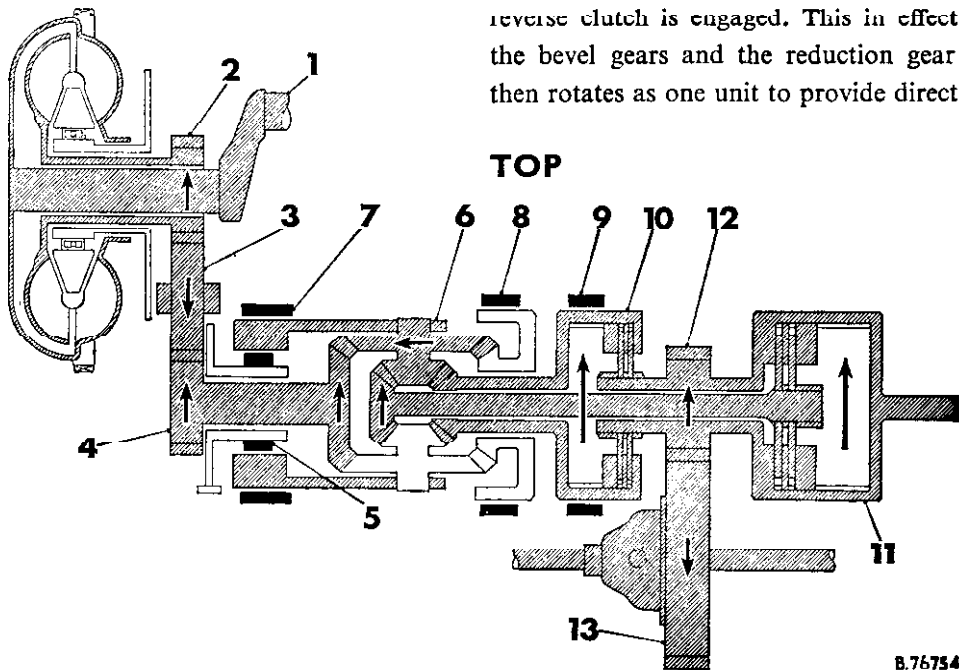
THIRD SPEED

For this ratio the third speed bevel wheel is held by its appropriate drum and brake band, and in this case the planet clusters orbit around this gear. Like second speed, power is transmitted from the input bevel through the planets to the mainshaft and in this case provides a ratio of 1.46 : 1.

POWER FLOW DIAGRAMS (MECHANICAL)

TOP SPEED

In addition to the forward clutch, the top and reverse clutch is engaged. This in effect locks up the bevel gears and the reduction gear assembly then rotates as one unit to provide direct drive.

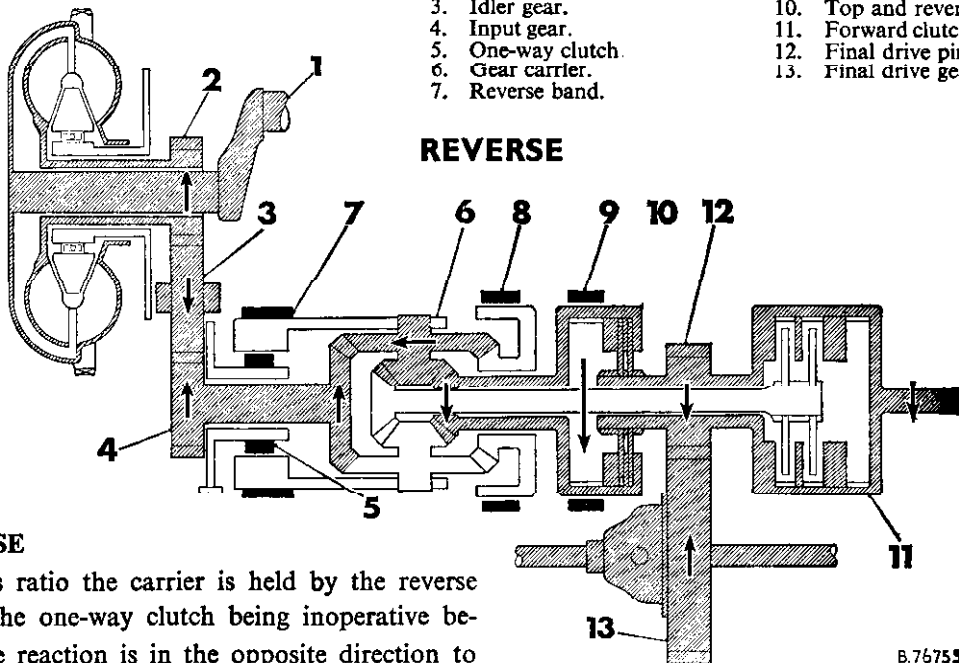


B.76734

KEY TO COMPONENTS

- | | |
|--------------------------|-----------------------------|
| 1. Crankshaft. | 8. Third gear band. |
| 2. Converter output gear | 9. Second gear band. |
| 3. Idler gear. | 10. Top and reverse clutch. |
| 4. Input gear. | 11. Forward clutch. |
| 5. One-way clutch. | 12. Final drive pinion. |
| 6. Gear carrier. | 13. Final drive gear. |
| 7. Reverse band. | |

REVERSE



B.76755

REVERSE

In this ratio the carrier is held by the reverse band—the one-way clutch being inoperative because the reaction is in the opposite direction to first speed).

In addition the top and reverse clutch is engaged.

The input bevel wheel drives the planet wheel and the planet pinion drives the reverse drive gear. Thus power is transmitted through the planet assemblies to the top and reverse clutch and thence to the final drive pinion to provide a ratio of 2.69 : 1.