## 9. General Diagnostic Table

|   |                  |                |                        |                        |              |              |            | _                         |                          |                  |                         | <u> </u>         | _                |                  | · <u> </u>             |          |                 |                 | ic lable         |                  |                  |               |               |              |                 |                |               |                 |                |
|---|------------------|----------------|------------------------|------------------------|--------------|--------------|------------|---------------------------|--------------------------|------------------|-------------------------|------------------|------------------|------------------|------------------------|----------|-----------------|-----------------|------------------|------------------|------------------|---------------|---------------|--------------|-----------------|----------------|---------------|-----------------|----------------|
| Problem parts   | Inhibitor switch | Control module | Vehicle speed sensor 1 | Vehicle speed sensor 2 | Select cable | Select lever | FWD switch | Starter motor and harness | Throttle position sensor | Diagnosis switch | Accumulator ("N" — "D") | Accumulator (2A) | Accumulator (4A) | Accumulator (3R) | ATF temperature sensor | Strainer | Duty solenoid A | Duty solenoid B | Shift solenoid 1 | Shift solenoid 2 | Shift solenoid 3 | Control valve | Detent spring | Manual plate | Transfer clutch | Transfer valve | Transfer pipe | Duty solenoid C | Forward clutch |
| Symptom   | 1                | 2              | 3                      | 4                      | 5            | 6            | 7          | 8                         | 9                        | 10               | 11                      | 12               | 13               | 14               | 15                     | 16       | 17              | 18              | 19               | 20               | 21               | 22            | 23            | 24           | 25              | 26             | 27            | 28              | 29             |
| Starter does not rotate when select lever is in "P" or "N."; starter rotates when select lever is "R", "D", "3" or "2." | Х                |                |                        |                        | Х            | Х            |            | Х                         |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Abnormal noise when select lever is in "P" or "N."  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        | Х        |                 |                 |                  |                  |                  |               |               |              |                 |                |               | x               | ,              |
| Hissing noise occurs during standing starts.  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        | Χ        |                 |                 |                  |                  |                  |               |               |              |                 |                |               | $\sqcap$        | $\dashv$       |
| Noise occurs while driving in "D <sub>1</sub> " range.  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               | $\Box$          | $\neg$         |
| Noise occurs while driving in "D <sub>2</sub> " range.  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Noise occurs while driving in "D <sub>3</sub> " range.  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Noise occurs while driving in "D <sub>4</sub> " range.  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Engine stalls while shifting from one range to another.   |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Vehicle moves when select lever is in "N."  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               | Ш               | Х              |
| Shock occurs when select lever is moved from "N" to "D."  |                  | Х              |                        |                        |              |              |            |                           |                          |                  | Х                       |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Excessive time lag occurs when select lever is moved from "N" to "D."   |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | х             |               |              |                 |                |               |                 | Х              |
| Shock occurs when select lever is moved from "N" to "R."  |                  | Х              |                        |                        |              |              |            |                           |                          |                  |                         |                  | Х                |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Excessive time lag occurs when select lever is moved from "N" to "R."   |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Vehicle does not start in any shift range (engine revving up).  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        | Х        |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Vehicle does not start in any shift range (engine stall).   |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Vehicle does not start in "R" range only (engine revving up).   |                  |                |                        |                        | Х            | Х            |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | X             |               |              |                 |                |               |                 |                |
| Vehicle does not start in "R" range only (engine stall).  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 | Х              |
| Vehicle does not start in "D" or "3" range (engine revving up).   |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 | Х              |
| Vehicle does not start in "D", "3" or "2" range (engine revving up).  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               | $\sqcup$        | Х              |
| Vehicle does not start in "D", "3" or "2" range (engine stall).  Vehicle starts in "R" range only (engine rev-          |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| venicle starts in "R" range only (engine rev-<br>ving up).  Acceleration during standing starts is poor                 |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | X             |               |              |                 |                |               | $\vdash$        |                |
| (high stall rpm).  Acceleration during standing starts is poor (significant poor thing).                                |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               | $\square$       | X              |
| (low stall rpm).  Acceleration during standing starts is poor starts in poor when select lever is in                    |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               | $\vdash$        |                |
| "D", "3" or "2" range (normal stall rpm).  Acceleration is poor when select lever is in                                 |                  | Х              |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               | $\vdash$        |                |
| "R" (normal stall rpm).   | L                | L              |                        |                        | L            | L            |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             | L             | L            | L               | L              |               |                 |                |
| No shift occurs from 1st to 2nd gear.   |                  | Х              | Х                      | Х                      |              |              |            |                           | Х                        |                  |                         |                  |                  |                  |                        |          |                 |                 | Χ                | Х                |                  | Х             |               |              |                 |                |               | Ш               |                |
| No shift occurs from 2nd to 3rd gear.   |                  | Х              |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               | Ш               | _              |
| No shift occurs from 3rd to 4th gear.   |                  | Х              |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  | Х                | Х                      |          |                 |                 |                  |                  | Х                | Х             |               |              |                 |                |               | Ш               |                |
| No "kick-down" shifts occur.  |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | _             |               |              |                 |                |               | Ш               | <u> </u>       |
| Engine brake is not effected when select lever is in "3" range.   | Х                | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
|   | 1                | 2              | 3                      | 4                      | 5            | 6            | 7          | 8                         | 9                        | 10               | 11                      | 12               | 13               | 14               | 15                     | 16       | 17              | 18              | 19               | 20               | 21               | 22            | 23            | 24           | 25              | 26             | 27            | 28              | 29             |

| Overrunning clutch | Drive pinion | Crown gear |          | Differential gear | Final gear | Seal pipe | Oil pump | High clutch | Band brake | Low & reverse clutch | Reverse clutch | One-way clutch (1-2) | One-way clutch (3-4) | Double oil seal | Input shaft | Output shaft | Planetary gear | Reduction gear | Drive plate | Torque converter one-way clutch | Lock-up facing  | Lock-up damper | ATF deterioration | ATF level too high or too low | Differential gear oil level too high or too low | Engine performance | Engine speed signal | Parking brake mechanism | Problem parts   |
|--------------------|--------------|------------|----------|-------------------|------------|-----------|----------|-------------|------------|----------------------|----------------|----------------------|----------------------|-----------------|-------------|--------------|----------------|----------------|-------------|---------------------------------|-----------------|----------------|-------------------|-------------------------------|---|--------------------|---------------------|-------------------------|---|
| 30                 | 31           | 32         | 33       | 34                | 35         | 36        | 37       | 38          | 39         | 40                   | 41             | 42                   | 43                   | 44              | 45          | 46           | 47             | 48             | 49          | 50                              | 51              | 52             | 53                | 54                            | 55  | 56                 | 57                  | 58                      | Symptom   |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Starter does not rotate when select lever is in "P" or "N."; starter rotates when select lever is "R", "D", "3" or "2." |
|                    |              |            |          |                   |            |           | Х        |             |            |                      |                |                      |                      |                 |             |              |                |                | Х           |                                 |                 |                |                   | Х                             |   |                    |                     |                         | Abnormal noise when select lever is in "P" or "N."  |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   | Х                             |   |                    |                     |                         | Hissing noise occurs during standing starts.  |
|                    |              |            |          |                   | Χ          |           |          |             |            |                      |                |                      |                      |                 |             |              | Χ              | Χ              |             |                                 |                 |                |                   |                               | Х   |                    |                     |                         | Noise occurs while driving in "D <sub>1</sub> " range.  |
|                    |              |            |          |                   | Х          |           |          |             |            |                      |                |                      |                      |                 |             |              | Χ              | Х              |             |                                 |                 |                |                   |                               | Х   |                    |                     |                         | Noise occurs while driving in "D2" range.   |
| Щ                  |              |            |          |                   | X          |           |          |             |            |                      |                |                      |                      |                 |             |              | * *            | X              |             |                                 |                 |                |                   |                               | X   |                    |                     |                         | Noise occurs while driving in "D <sub>3</sub> " range.  |
| $\vdash$           |              |            |          |                   | Χ          |           |          |             |            |                      |                |                      |                      |                 |             |              | X              | Х              |             |                                 |                 |                |                   |                               | Х   |                    |                     |                         | Noise occurs while driving in "D <sub>4</sub> " range.  |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 | Χ              |                   |                               |   | Х                  |                     |                         | Engine stalls while shifting from one range to another.   |
| П                  |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Vehicle moves when select lever is in "N."  |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                | Х                 |                               |   |                    |                     |                         | Shock occurs when select lever is moved from "N" to "D."  |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Excessive time lag occurs when select lever is moved from "N" to "D."   |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                | Х                 |                               |   |                    |                     |                         | Shock occurs when select lever is moved from "N" to "R."  |
|                    |              |            |          |                   |            |           |          |             |            | х                    | х              |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Excessive time lag occurs when select lever is moved from "N" to "R."   |
|                    | Х            | Х          | Х        | Х                 |            |           | Х        |             |            |                      |                |                      |                      |                 | Χ           | Х            | Χ              |                | Х           |                                 |                 |                |                   | Х                             |   |                    |                     |                         | Vehicle does not start in any shift range (engine revving up).  |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     | Х                       | Vehicle does not start in any shift range (engine stall).   |
|                    |              |            |          |                   |            |           |          |             |            | Х                    | Х              |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Vehicle does not start in "R" range only (engine revving up).   |
|                    |              |            |          |                   |            |           |          |             | Х          |                      |                |                      |                      |                 |             |              | Χ              |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Vehicle does not start in "R" range only (engine stall).  |
|                    |              |            |          |                   |            |           |          |             |            |                      |                | Х                    |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Vehicle does not start in "D" or "3" range (engine revving up).   |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Vehicle does not start in "D", "3" or "2" range (engine revving up).  |
|                    |              |            |          |                   |            |           |          |             |            |                      | Х              |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Vehicle does not start in "D", "3" or "2" range (engine stall).   |
|                    |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Vehicle starts in "R" range only (engine revving up).   |
|                    |              |            |          |                   |            |           |          |             |            |                      | Х              |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               | Х   |                    |                     |                         | Acceleration during standing starts is poor (high stall rpm).   |
|                    |              |            |          |                   |            |           | Х        |             |            |                      |                |                      |                      |                 |             |              |                |                |             | Х                               |                 |                |                   |                               |   | Х                  |                     |                         | Acceleration during standing starts is poor (low stall rpm).  |
|                    |              |            |          |                   |            |           |          | Х           | Х          |                      |                |                      |                      |                 |             |              | Χ              |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Acceleration is poor when select lever is in "D", "3" or "2" range (normal stall rpm).                                  |
| Х                  |              |            |          |                   |            |           |          | Х           | Х          |                      |                |                      |                      |                 |             |              | Χ              |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | Acceleration is poor when select lever is in "R" (normal stall rpm).  |
| $\Box$             |              |            |          |                   |            |           |          |             | Χ          |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | No shift occurs from 1st to 2nd gear.   |
| $\sqsubseteq$      |              |            |          |                   |            |           |          | Х           |            |                      |                |                      | Χ                    |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | No shift occurs from 2nd to 3rd gear.   |
| $\vdash$           |              |            | $\vdash$ |                   |            |           |          |             | Х          |                      |                |                      |                      |                 |             |              |                |                |             |                                 | $\vdash \vdash$ |                |                   |                               |   |                    |                     |                         | No shift occurs from 3rd to 4th gear.   |
| $\vdash$           |              |            |          |                   |            |           |          |             |            |                      |                |                      |                      |                 |             |              |                |                |             |                                 |                 |                |                   |                               |   |                    |                     |                         | No "kick-down" shifts occur.  |
|                    | 0.1          | 00         | 00       | 0.                | 0-         | 000       | 0=       | 0.0         | 00         | 40                   | 4.             | 40                   | 40                   | 4.              | 45          | 40           | 4=             | 40             | 40          | <b>5</b> 0                      |                 | F.C.           | <b>5</b> 0        |                               |   | <b>5</b> 0         |                     |                         | Engine brake is not effected when select lever is in "3" range.   |
| 30                 | 31           | 32         | 33       | 34                | 35         | 36        | 37       | 38          | 39         | 40                   | 41             | 42                   | 43                   | 44              | 45          | 46           | 47             | 48             | 49          | 50                              | 51              | 52             | 53                | 54                            | 55  | 56                 | 57                  | 58                      |   |

| Problem parts   | Inhibitor switch | Control module | Vehicle speed sensor 1 | Vehicle speed sensor 2 | Select cable | Select lever | FWD switch | Starter motor and harness | Throttle position sensor | Diagnosis switch | Accumulator ("N" — "D") | Accumulator (2A) | Accumulator (4A) | Accumulator (3R) | ATF temperature sensor | Strainer | Duty solenoid A | Duty solenoid B | Shift solenoid 1 | Shift solenoid 2 | Shift solenoid 3 | Control valve | Detent spring | Manual plate | Transfer clutch | Transfer valve | Transfer pipe | Duty solenoid C | Forward clutch |
|---|------------------|----------------|------------------------|------------------------|--------------|--------------|------------|---------------------------|--------------------------|------------------|-------------------------|------------------|------------------|------------------|------------------------|----------|-----------------|-----------------|------------------|------------------|------------------|---------------|---------------|--------------|-----------------|----------------|---------------|-----------------|----------------|
| Symptom  Engine brake is not effected when select   | 1                | 2              | 3                      | 4                      | 5            | 6            | 7          | 8                         | 9                        | 10               | 11                      | 12               | 13               | 14               | 15                     | 16       | 17              | 18              | 19               | 20               | 21               | 22            | 23            | 24           | 25              | 26             | 27            | 28              | 29             |
| lever is in "3" or "2" range.  Engine brake is not effected when select                   |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | .,            |               |              |                 |                |               | $\vdash \vdash$ | $\dashv$       |
| lever is in "1" range.  |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               | Ш               | _              |
| Shift characteristics are erroneous.  | Х                | X              | Х                      | Х                      |              |              |            |                           | Х                        |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                |               | $\sqcup$        | $\Box$         |
| No lock-up occurs.  |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  |                  | Х                      |          |                 |                 |                  |                  |                  | Х             |               |              |                 |                | $\vdash$      | $\vdash \vdash$ | $\dashv$       |
| Vehicle cannot be set in "D" range power mode.  |                  | Х              |                        | L                      |              |              |            |                           | Х                        |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               | Ll              |                |
| "D" range power mode cannot be released.  |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  |                  | Х                      |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Parking brake is not effected.  |                  |                |                        |                        | Х            | Х            |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Shift lever cannot be moved or is hard to move from "P" range.                            |                  |                |                        |                        | Х            | Х            |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Select lever is hard to move.   |                  |                |                        |                        | Х            | Х            |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               | Х             | Х            |                 |                |               | Ш               | $\dashv$       |
| Select lever is too light to move (unreasonable resistance).                              |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               | Х             | Х            |                 |                |               |                 |                |
| ATF spurts out.   |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               | Ш               | _              |
| Differential oil spurts out.  |                  | _              |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              |                 |                |               | $\sqcup$        | $\dashv$       |
| Differential oil level changes excessively.   |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              | V               |                |               | $\vdash$        |                |
| Odor is produced from oil supply pipe.  Shock occurs when select lever is moved           |                  |                |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              | Х               |                |               | $\vdash$        | Х              |
| from "1" to "2" range.  |                  | X              |                        |                        |              |              |            |                           | Х                        |                  |                         | Х                |                  |                  | Х                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               | $\square$       | _              |
| Slippage occurs when select lever is moved from "1" to "2" range.                         |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         | Х                |                  |                  | Х                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Shock occurs when select lever is moved from "2" to "3" range.                            |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  | Х                | Х                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Slippage occurs when select lever is moved from "2" to "3" range.                         |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  | Х                | Х                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Shock occurs when select lever is moved from "3" to "4" range.                            | L                | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  | Х                |                  | Χ                      |          | Χ               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Slippage occurs when select lever is moved from "3" to "4" range.                         |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  | Х                |                  | Χ                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Shock occurs when select lever is moved from "3" to "2" range.                            |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  |                  | Χ                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Shock occurs when select lever is moved from "D" to "1" range.                            |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  |                  | Х                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Shock occurs when select lever is moved from "2" to "1" range.                            |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  |                  | Х                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Shock occurs when accelerator pedal is released at medium speeds.                         |                  | Х              |                        |                        |              |              |            |                           | Х                        |                  |                         |                  |                  |                  | Х                      |          | Х               |                 |                  |                  |                  | Х             |               |              |                 |                |               |                 |                |
| Vibration occurs during straight-forward operation.                                       |                  | Х              |                        |                        |              |              |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 | Х               |                  |                  |                  |               |               |              |                 |                |               |                 |                |
| Select lever slips out of position during acceleration or while driving on rough terrain. |                  |                |                        |                        | Х            | Х            |            |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               | Х             | Х            |                 |                |               |                 |                |
| Vibration occurs during turns (tight corner "braking" phenomenon).                        |                  | Х              | Х                      | Х                      |              |              |            |                           | Х                        |                  |                         |                  |                  |                  | Х                      |          |                 |                 |                  |                  |                  |               |               |              | Х               | Х              |               | Х               |                |
| Front wheel slippage occurs during standing starts.                                       |                  | Х              |                        | Х                      |              |              | Х          |                           | Х                        |                  |                         |                  |                  |                  | Х                      |          |                 |                 |                  |                  |                  | Х             |               |              | Х               | Х              | Х             | Х               |                |
| Vehicle is not set in FWD mode.   |                  | Х              |                        |                        |              |              | Х          |                           |                          |                  |                         |                  |                  |                  |                        |          |                 |                 |                  |                  |                  |               |               |              | Х               | Χ              |               | Х               | $\neg$         |
|   | 1                | 2              | 3                      | 4                      | 5            | 6            | 7          | 8                         | 9                        | 10               | 11                      | 12               | 13               | 14               | 15                     | 16       | 17              | 18              | 19               | 20               | 21               | 22            | 23            | 24           | 25              | 26             | 27            | 28              | 29             |

| Overrunning clutch | Drive pinion | Crown gear |    | Differential gear | Final gear | -  |    |          |    | Low & reverse clutch | Reverse clutch | One-way clutch (1-2) | One-way clutch (3-4) | Double oil seal | Input shaft | Output shaft | Planetary gear |    | Drive plate | Torque converter one-way clutch | Lock-up facing | Lock-up damper | ATF deterioration | ATF level too high or too low | Differential gear oil level too high or too low | Engine performance |    | Parking brake mechanism | Problem parts   |
|--------------------|--------------|------------|----|-------------------|------------|----|----|----------|----|----------------------|----------------|----------------------|----------------------|-----------------|-------------|--------------|----------------|----|-------------|---------------------------------|----------------|----------------|-------------------|-------------------------------|---|--------------------|----|-------------------------|---|
| 30                 | 31           | 32         | 33 | 34                | 35         | 36 | 37 | 38       | 39 | 40                   | 41             | 42                   | 43                   | 44              | 45          | 46           | 47             | 48 | 49          | 50                              | 51             | 52             | 53                | 54                            | 55  | 56                 | 57 | 58                      | Symptom   |
| X                  |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Engine brake is not effected when select lever is in "3" or "2" range.                    |
|                    |              |            |    |                   |            |    |    |          |    | Х                    |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Engine brake is not effected when select lever is in "1" range.                           |
| $\vdash$           |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Shift characteristics are erroneous.  |
| $\vdash$           |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 | Х              |                |                   |                               |   |                    | Х  |                         | No lock-up occurs.  |
| Г                  |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Vehicle cannot be set in "D" range power  |
| ⊢                  |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    | _           |                                 |                |                |                   |                               |   |                    |    |                         | mode.  "D" range power mode cannot be released.   |
| $\vdash$           |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    | Х                       | Parking brake is not effected.  |
| $\vdash$           |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    | Х                       | Shift lever cannot be moved or is hard to move from "P" range.                            |
| _                  |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         |   |
| ⊢                  |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    | _           |                                 |                |                |                   |                               |   |                    |    |                         | Select lever is hard to move.  Select lever is too light to move (unreason-               |
|                    |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | able resistance).   |
| _                  |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   | Х                             |   |                    |    |                         | ATF spurts out.   |
| <u> </u>           |              |            |    |                   |            | X  |    |          |    |                      |                |                      |                      | V               |             |              |                |    |             |                                 |                |                |                   |                               | Х   |                    |    |                         | Differential oil spurts out.  |
| X                  |              |            |    |                   |            | ^  |    | Х        | X  | X                    | Х              |                      |                      | Х               |             |              |                |    |             |                                 | Х              |                | Х                 |                               |   |                    |    |                         | Differential oil level changes excessively.  Odor is produced from oil supply pipe.       |
| Ĥ                  |              |            |    |                   |            |    |    | <u> </u> | X  | Ĥ                    | <u> </u>       |                      |                      |                 |             |              |                |    | _           |                                 |                |                | X                 |                               |   | Х                  |    |                         | Shock occurs when select lever is moved   |
| <u> </u>           |              |            |    |                   |            |    |    |          | ^  |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                | ^                 |                               |   | _                  |    |                         | from "1" to "2" range.  |
|                    |              |            |    |                   |            |    |    |          | Х  |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Slippage occurs when select lever is moved from "1" to "2" range.                         |
|                    |              |            |    |                   |            |    |    | Х        | Х  |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                | Х                 |                               |   | Х                  |    |                         | Shock occurs when select lever is moved from "2" to "3" range.                            |
| L                  | L_           |            |    |                   | L          | L  |    | Х        | Х  |                      | L              | L                    |                      |                 |             |              |                |    | L           | L                               | L_             |                |                   |                               |   |                    |    |                         | Slippage occurs when select lever is moved from "2" to "3" range.                         |
| Х                  |              |            |    |                   |            |    |    |          | Х  |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                | Х                 |                               |   | Х                  |    |                         | Shock occurs when select lever is moved from "3" to "4" range.                            |
|                    |              |            |    |                   |            |    |    |          | Х  |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Slippage occurs when select lever is moved from "3" to "4" range.                         |
| Х                  |              |            |    |                   |            |    |    |          | Х  |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                | Х                 |                               |   |                    |    |                         | Shock occurs when select lever is moved from "3" to "2" range.                            |
|                    |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                | Х                 |                               |   |                    |    |                         | Shock occurs when select lever is moved from "D" to "1" range.                            |
|                    |              |            |    |                   |            |    |    |          |    | Х                    |                |                      |                      |                 |             |              |                |    |             |                                 |                |                | Х                 |                               |   |                    |    |                         | Shock occurs when select lever is moved from "2" to "1" range.                            |
|                    |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                | Х              |                   |                               |   | Х                  |    |                         | Shock occurs when accelerator pedal is released at medium speeds.                         |
|                    |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 | Х              | Х              |                   |                               |   |                    |    |                         | Vibration occurs during straight-forward operation.                                       |
|                    |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Select lever slips out of position during acceleration or while driving on rough terrain. |
|                    |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                | Х                 |                               |   |                    |    |                         | Vibration occurs during turns (tight corner "braking" phenomenon).                        |
|                    |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Front wheel slippage occurs during standing starts.                                       |
| L                  |              |            |    |                   |            |    |    |          |    |                      |                |                      |                      |                 |             |              |                |    |             |                                 |                |                |                   |                               |   |                    |    |                         | Vehicle is not set in FWD mode.   |
| 30                 | 31           | 32         | 33 | 34                | 35         | 36 | 37 | 38       | 39 | 40                   | 41             | 42                   | 43                   | 44              | 45          | 46           | 47             | 48 | 49          | 50                              | 51             | 52             | 53                | 54                            | 55  | 56                 | 57 | 58                      |   |