

Table Of Contents

Preface

Acknowledgments

Introduction

Chapter 1: History, Identification and Evolution of the A-904 and A-727 TorqueFlite

The Manufacturing Facility

Identification

Production Numbers and Transmission Identification

Evolution of the TorqueFlite A-904 and A-727

Chapter 2: TorqueFlite Components and Operation

The Components

The TorqueFlite in Operation

Chapter 3: Troubleshooting

Fluid Level

Shift Linkage

Throttle Pressure Linkage

Road Testing

Hydraulic Pressure Testing

Air Pressure Testing

Torque Converter Stall Testing

Noise Identification

Leaks

Summary

Chapter 4: Transmission Disassembly

General Safety

Tools, Chemicals and Miscellaneous Supplies

The Work Area

Cleaning for Disassembly and Inspection

Tearing It Down

Removing Subassemblies

Chapter 5: Component Preparation

Oil Pump

Front Clutch

Rear Clutch

Overrunning Clutch

Planetary Gear Assembly

Kickdown Servo and Band

Low-Reverse Servo and Band

Output Shaft, Governor and Parking Gear

Chapter 6: Control Valve Body Preparation

Pressure Control and Regulation Valves

Disassembly

Check Balls, Pressure Regulators, Transfer and Separator Plate, Lock-Up Valve Assembly or Stiffener and Filter

Shuttle Valve and Governor Plugs

Manual Lever and Throttle Pressure Lever

Shift Valves and Regulator Valve

Reassembly

Shift Valves and Regulator

Manual Lever and Throttle Pressure Lever

Shuttle Valve and Governor Plugs

Check Balls, Pressure Regulators, Transfer and Separator Plate, Lock-Up Valve Assembly or Stiffener and Filter

Chapter 7: Assembly

Subassembly Installation Tips and Pre-Assembly Tests

Air Checking Clutch Assemblies before Installation

Miscellaneous Component Preparation

Overrunning Clutch

Low-Reverse Servo

Low-Reverse Anchor, Band and Drum: A-904

Low-Reverse Anchor, Band and Drum: A-727

Planetary Gear Assemblies, Sun Gear and Sun Gear Driving Shell

Kickdown Servo

Front and Rear Clutch Retainer

Kickdown Band

Oil Pump

Extension Housing

Air Checking Assemblies

Accumulator, Valve Body, Levers, Filter, Switch and Pan

Post-Install Procedure

Chapter 8: The Torque Converter

Torque Converter Basics

Details of a Continuous Cycle

Factors That Affect Converter Operation

Converter Issues

Factory Converters

Aftermarket Converters

Selecting a Converter

Chapter 9: Performance Modifications

Why Modify?

TorqueFlite Strengths

Modification Parts

Shift Modification Kits or Complete Valve Bodies
TorqueFlite Specialty Internal Part Upgrades
Friction Upgrades
Bands, Levers and Struts
Complete Overhaul Sets

Appendix A: TorqueFlite Transmission Numbers

Appendix B: Troubleshooting Charts, Data and Specifications

Appendix C: Performance Modifications and Suggestions

Source Guide