



TABLE OF CONTENTS

AIRTEK® for Volvo Vehicles
 August 2005
 Rev. D

| | | | | | |
|------------------|--|----|-------------------|---|-----|
| Section 1 | Introduction | 2 | Section 9 | Component Replacement | |
| Section 2 | Product Description | 3 | | Fasteners | 48 |
| Section 3 | Important Safety Notice | 5 | | Height Control Valve | 48 |
| Section 4 | Special Tools | | | Air Spring (12,000/12,500 lbs. Capacity) | 50 |
| | King Pin Bushing Tools | 9 | | Air Spring (13,500/14,600 lbs. Capacity) | 52 |
| Section 5 | Parts List | 10 | | Front Leaf Spring Hanger | 53 |
| Section 6 | Towing Procedure | 14 | | Shackle Bracket | 53 |
| Section 7 | Preventive Maintenance | | | Rubber Axle Stop | 55 |
| | Visual Inspection | 18 | | Thrust Washers | 55 |
| | Clamp Group Re-torque Interval | 19 | | Leaf Spring | 56 |
| | Lubrication | 19 | | Front and Rear Spring Eye Bushings | 59 |
| | Tie Rod Lubrication | 21 | | Shock Absorber | 60 |
| | Tire Inspection | 22 | | Bottom Axle Wrap | 61 |
| | Shock Absorber Inspection | 25 | | Top Axle Wrap | 62 |
| | Thrust Washer Inspection | 26 | | Front Axle Assembly | 66 |
| | Axle Wrap Inspection | 27 | | Steering Knuckle | |
| | King Pin Bushing Inspection | 27 | | Disassembly | 70 |
| | Steering Knuckle Inspection | 28 | | King Pin Measurement & Preparation | 71 |
| | Tie Rod End Inspection | 29 | | King Pin Bushing Removal | 73 |
| Section 8 | Alignment and Adjustments | | | Steering Knuckle Bore Measurement | 74 |
| | Alignment Definitions | 31 | | King Pin Bushing Installation | 75 |
| | Inspection Prior to Alignment | 35 | | King Pin Bushing Reaming | 76 |
| | Front Wheel Alignment | 36 | | King Pin Seal Installation | 78 |
| | Dual Ride Height Control Valves | 38 | | Steering Knuckle Assembly | 79 |
| | Single Ride Height Control Valve | 40 | | Tie Rod End & Cross Tube | 81 |
| | Height Control Valve Test | 43 | | Single to Dual HCV Conversion | 83 |
| | Steering Stop | 44 | Section 10 | Plumbing Diagrams | 86 |
| | Toe Setting | 45 | Appendix | | |
| | Spring Eye Re-torque | 46 | | A: Important References | A-1 |
| | | | | B: Front Wheel Alignment Specs | A-2 |
| | | | | C: Trouble Shooting Guide | A-3 |
| | | | | D: Torque Specifications | A-5 |
| | | | | Technical Procedure Publication Quiz | A-7 |