



## Contents

|  |           |
|--|-----------|
| <b>00 - Technical data</b>   | <b>1</b>  |
| <b>1 General information</b>   | <b>1</b>  |
| 1.1 Rear axle type plate   | 1         |
| 1.2 Advantages of all-wheel drive  | 1         |
| 1.3 Function of permanent all-wheel drive  | 1         |
| 1.4 Differential locks   | 2         |
| <b>2 Repair notes</b>  | <b>3</b>  |
| 2.1 Gaskets and seals  | 3         |
| 2.2 Locking devices  | 3         |
| 2.3 Nuts and bolts   | 3         |
| 2.4 Bearings   | 3         |
| 2.5 Shims  | 4         |
| <b>3 Technical data</b>  | <b>5</b>  |
| 3.1 Technical data for rear axle   | 5         |
| 3.2 Technical data for transfer box  | 15        |
| 3.3 Calculation of gear ratios   | 15        |
| <b>4 Overview - power transmission</b>   | <b>16</b> |
| 4.1 Overview - power transmission - all-wheel drive  | 16        |
| <b>34 - Controls, housing</b>  | <b>17</b> |
| <b>1 Transfer box (Crafter 4MOTION with Achleitner all-wheel drive)</b>                                      | <b>17</b> |
| 1.1 Assembly overview - transfer box   | 17        |
| 1.2 Removing and installing transfer box   | 18        |
| 1.3 Removing and installing rubber bush and rear bracket of transfer box                                     | 21        |
| 1.4 Removing and installing upper bracket for transfer box   | 23        |
| 1.5 Removing and installing rubber bush and front bracket for transfer box                                   | 25        |
| 1.6 Removing and installing front bracket for transfer box   | 26        |
| 1.7 Checking and replenishing gear oil level in transfer box   | 27        |
| 1.8 Removing and installing transfer box control motor V455  | 29        |
| 1.9 Removing and installing pneumatic actuator   | 30        |
| <b>39 - Final drive - front differential</b>   | <b>32</b> |
| <b>1 Front final drive (Crafter 4MOTION with Achleitner all-wheel drive)</b>                                 | <b>32</b> |
| 1.1 Assembly overview - front final drive  | 32        |
| 1.2 Removing and installing front final drive  | 33        |
| 1.3 Checking and replenishing gear oil level in front final drive  | 36        |
| 1.4 Removing and installing flange shafts on front final drive   | 38        |
| 1.5 Renewing oil seals on front final drive  | 39        |
| <b>39 - Final drive - differential</b>   | <b>41</b> |
| <b>1 Rear axle</b>   | <b>41</b> |
| 1.1 Assembly overview - rear axle  | 41        |
| 1.2 Assembly overview - rear axle, Crafter 4MOTION with Achleitner four-wheel drive                          | 43        |
| 1.3 Removing and installing rear axle  | 44        |
| 1.4 Removing and installing rear axle (Crafter 4MOTION with Achleitner all-wheel drive)                      | 49        |
| 1.5 Removing and installing actuator for differential lock, Crafter 4MOTION with Achleitner four-wheel drive | 53        |
| <b>2 Gear oil</b>  | <b>56</b> |
| 2.1 Checking gear oil level  | 56        |
| 2.2 Checking gear oil level, Crafter 4MOTION with Achleitner four-wheel drive                                | 57        |
| <b>3 Oil seals</b>   | <b>59</b> |
| 3.1 Renewing seal for propshaft flange of rear axle  | 59        |



|          |  |            |
|----------|--|------------|
| <b>4</b> | <b>Final drive</b>   | <b>69</b>  |
| 4.1      | Assembly overview - final drive  | 69         |
| 4.2      | Adjustment overview  | 74         |
| 4.3      | Overview of shims  | 75         |
| 4.4      | Removing and installing drive pinion and differential  | 78         |
| 4.5      | Pulling tapered roller bearing for drive pinion off and pressing it on                                       | 105        |
| 4.6      | Pulling tapered roller bearing for differential off and pressing it on                                       | 107        |
| 4.7      | Adjusting crown wheel  | 108        |
| 4.8      | Tables for printing out, crown wheel adjustment  | 111        |
| 4.9      | Adjusting drive pinion   | 112        |
| 4.10     | Tables for printing out, drive pinion adjustment   | 125        |
| <b>5</b> | <b>Propshaft</b>   | <b>126</b> |
| 5.1      | Assembly overview - propshaft  | 126        |
| 5.2      | Assembly overview - propshaft, Crafter 4MOTION with Achleitner four-wheel drive                              | 134        |
| 5.3      | Assembly overview - propshaft bearing with underride guard, Crafter 4MOTION with Achleitner four-wheel drive | 137        |
| 5.4      | Removing and installing propshaft  | 137        |
| 5.5      | Removing and installing front propshaft (Crafter 4MOTION with Achleitner all-wheel drive)                    | 139        |
| 5.6      | Removing and installing rear propshaft (Crafter 4MOTION with Achleitner all-wheel drive)                     | 141        |
| 5.7      | Aligning propshaft, Crafter 4MOTION with Achleitner four-wheel drive   | 143        |
| 5.8      | Removing and installing constant velocity joint shaft (Crafter 4MOTION with Achleitner all-wheel drive)      | 145        |
| 5.9      | Renewing intermediate bearing of 2-part propshaft  | 147        |
| 5.10     | Renewing intermediate bearing of three section propshaft   | 150        |
| 5.11     | Renewing front intermediate bearing of propshaft   | 157        |
| 5.12     | Installing protective caps   | 159        |
| 5.13     | Removing and installing flexible coupling with damper weight   | 161        |
| 5.14     | Removing and installing damper weight  | 165        |
| <b>6</b> | <b>Air compressor/pressure accumulator, Crafter 4MOTION with Achleitner four-wheel drive</b>                 | <b>168</b> |
| 6.1      | Assembly overview - air compressor V534 /pressure accumulator  | 168        |
| 6.2      | Removing and installing air compressor V534 and pressure accumulator   | 170        |
| 6.3      | Releasing pressure before working on compressed air system   | 173        |
| 6.4      | Repairing air line   | 174        |
| 6.5      | Removing and installing valve block for compressed air   | 175        |
| 6.6      | Removing and installing pressure switch for air compressor F503  | 176        |
| 6.7      | Performing pressure test   | 177        |