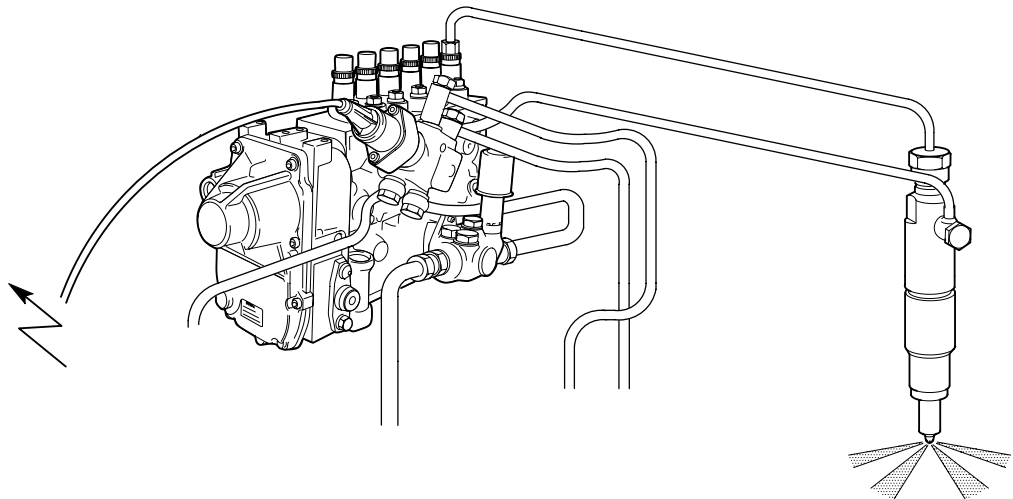


**SCANIA**

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## Injection equipment and engine speed adjustment



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# Injection equipment and engine speed adjustment

| Engine type                      |                        | DSC9 11                   | DSC9 12                   | DSC9 13                   |
|----------------------------------|------------------------|---------------------------|---------------------------|---------------------------|
| Max. output hp (kW)              |                        | 220 (162)                 | 260 (191)                 | 310 (228)                 |
| Idle speed rpm                   | Low                    | 500                       | 500                       | 500                       |
|                                  | High                   | 2350-2450                 | 2350-2450                 | 2350-2450                 |
| $\alpha^\circ$                   |                        | 14                        | 14                        | 15                        |
| Opacity value (k value) $m^{-1}$ |                        | 1.13                      | 1.17                      | 2.00                      |
| Injection pump assembly          | Truck                  | 1 369 545                 | 1 369 528                 | 1 383 795                 |
|                                  | Bus                    | 1 380 280                 | 1 380 278                 |                           |
| Injector                         | Assembly               | 1 420 276                 | 1 732 454                 | 1 404 591                 |
|                                  |                        |                           |                           |                           |
|                                  | Holder (type)          | KDEL97P56                 | KDEL97P56                 | KDEL97P56                 |
|                                  | Scania part No.        | 1 383 223                 | 1 383 223                 | 1 383 223                 |
|                                  |                        |                           |                           |                           |
|                                  | Nozzle (type)          | DLLA145P627               | DLLA 147P1521             | DLLA145P593               |
|                                  | Scania part No.        | 1 420 276                 | 1 378 827                 | 1 373 997                 |
|                                  |                        |                           |                           |                           |
|                                  | Hole, $\varnothing$ mm | 8 x 0.178                 | 8 x 0.192                 | 8 x 0.22                  |
|                                  |                        |                           |                           |                           |
| Opening pressure bar *)          |                        | 295 +/- 5                 | 295 +/- 5                 | 295 +/- 5                 |
|                                  |                        | (296 +/- 6) <sup>1)</sup> | (296 +/- 6) <sup>1)</sup> | (296 +/- 6) <sup>1)</sup> |

\*) Value in brackets is for inspection.

1) Dual-spring injector, only the first stage can be inspected.

| Engine type                             |                                    | DSC9 15                   | DSI9E 01                  | DC9 01                  |
|---|------------------------------------|---------------------------|---------------------------|-------------------------|
| Max. output hp (kW)                     |                                    | 310 (228)                 | 230 (170)                 | 230 (170)               |
| Idle speed rpm                          | Low                                | 500                       | 550                       | 500                     |
|   | High                               | 2350-2450                 | 2350-2450                 | 2350-2450               |
| $\alpha^\circ$                          |                                    | 15                        | 13                        | 0 <sup>2)</sup>         |
| Opacity value (k value) m <sup>-1</sup> |                                    | 1.11                      |                           | 0.75                    |
| Injection pump assembly                 | Truck                              | 1 383 494                 |                           | 1 402 963               |
|   | Bus                                | 1 385 102                 | 1 388 694                 | 1 402 963               |
| Injector                                | Assembly                           | 1 404 591                 | 1 392 130                 | 1 397 338 (Qty 1)       |
|   |                                    |                           |                           | 1 397 340 (Qty 5)       |
|   | Holder (type)                      | KDEL97P56                 | KDEL97P10                 | ----                    |
|   | Scania part No.                    | 1 383 223                 | 1 377 607                 | 1 397 339 (Qty 1)       |
|   |                                    |                           |                           | 1 395 987 (Qty 5)       |
|   | Nozzle (type)                      | DLLA145P593               | DSLA150P761               | DLLA144P825             |
|   | Scania part No.                    | 1 373 997                 | 1 382 712                 | 1 407 044               |
|   | Hole, Ø mm                         | 8 x 0.22                  | 5 x 0.418                 | 8 x 0.161               |
|   | Opening pressure bar <sup>*)</sup> | 295 +/- 5                 | 280+/- 4                  | 275+/-5                 |
|   |                                    | (296 +/- 6) <sup>1)</sup> | (286 +/- 6) <sup>1)</sup> | (276+/-6) <sup>1)</sup> |

\*) Value in brackets is for inspection.

1) Dual-spring injector, only the first stage can be checked.

2) At TDC.

| Engine type                             |          | DC9 02                                 | DC9 03                                 | DC9 04                                 |
|---|----------|--|--|--|
| Max. output hp (kW)                     |          | 260 (191)                              | 300 (220)                              | 230 (170)                              |
| Idle speed rpm                          | Low      | 500                                    | 500                                    | 500                                    |
|   | High     | 2350-2450                              | 2350-2450                              | 2350-2450                              |
| $\alpha^\circ$                          |          | 0 <sup>2)</sup>                        | 0 <sup>2)</sup>                        | 0 <sup>2)</sup>                        |
| Opacity value (k value) m <sup>-1</sup> |          | 0.85                                   | 1.04                                   | 0.61                                   |
| Injection pump assembly                 | Truck    | 1 402 963                              | 1 402 963                              | 1 402 963                              |
|   | Bus      | 1 402 963                              | 1 402 963                              | 1 402 963                              |
| Injector                                | Assembly | 1 397 338 (Qty 1)                      | 1 434 121 (Qty 1)                      | 1 397 338 (Qty 1)                      |
|   |          | 1 397 340 (Qty 5)                      | 1 434 122 (Qty 5)                      | 1 397 340 (Qty 5)                      |
| Holder (type)                           |          | ----                                   | ----                                   | ----                                   |
| Scania part No.                         |          | 1 397 339 (Qty 1)                      | 1 397 339 (Qty 1)                      | 1 397 339 (Qty 1)                      |
|   |          | 1 395 987 (Qty 5)                      | 1 395987 (Qty 5)                       | 1 395 987 (Qty 5)                      |
| Nozzle (type)                           |          | DLLA144P825                            | DLLA144P908                            | DLLA144P825                            |
| Scania part No.                         |          | 1 407 044                              | 1 420 725                              | 1 407 044                              |
| Hole, Ø mm                              |          | 8 x 0.161                              | 8 x 0.162                              | 8 x 0.161                              |
| Opening pressure bar <sup>*)</sup>      |          | 275 +/- 5<br>(276 +/- 6) <sup>1)</sup> | 275 +/- 5<br>(276 +/- 6) <sup>1)</sup> | 275 +/- 5<br>(276 +/- 6) <sup>1)</sup> |

\*) Value in brackets is for inspection.

1) Dual-spring injector, only the first stage can be checked.

2) At TDC.

| Engine type                             |          | DSC9 05                                | DC9 06                                 |
|---|----------|--|--|
| Max. output hp (kW)                     |          | 260 (191)                              | 300 (220)                              |
| Idle speed rpm                          | Low      | 500                                    | 500                                    |
|   | High     | 2350-2450                              | 2350-2450                              |
| $\alpha^\circ$                          |          | 0 <sup>2)</sup>                        | 0 <sup>2)</sup>                        |
| Opacity value (k value) m <sup>-1</sup> |          | 0.62                                   | 0.58                                   |
| Injection pump assembly                 | Truck    | 1 402 963                              | 1 402 963                              |
|   | Bus      | 1 402 963                              | 1 402 963                              |
| Injector                                | Assembly | 1 397 338 (Qty 1)                      | 1 434 121 (Qty 1)                      |
|   |          | 1 397 340 (Qty 5)                      | 1 434 122 (Qty 5)                      |
| Holder (type)                           |          | ----                                   | ----                                   |
| Scania part No.                         |          | 1 397 339 (Qty 1)                      | 1 397 339 (Qty 1)                      |
|   |          | 1 395 987 (Qty 5)                      | 1 395987 (Qty 5)                       |
| Nozzle (type)                           |          | DLLA144P825                            | DLLA144P908                            |
| Scania part No.                         |          | 1 407 044                              | 1 420 725                              |
| Hole, Ø mm                              |          | 8 x 0.161                              | 8 x 0.162                              |
| Opening pressure bar <sup>*)</sup>      |          | 275 +/- 5<br>(276 +/- 6) <sup>1)</sup> | 275 +/- 5<br>(276 +/- 6) <sup>1)</sup> |

\*) Value in brackets is for inspection.

1) Dual-spring injector, only the first stage can be checked.

2) At TDC.

| <b>Engine type</b>                            |                                | <b>DSC11 74</b> | <b>DSC11 75</b> | <b>DSC11 79</b>           |
|---|--------------------------------|-----------------|-----------------|---------------------------|
| <b>Max. output hp (kW)</b>                    |                                | 320 (235)       | 360 (266)       | 340 (250)                 |
| <b>Idle speed rpm</b>                         | <b>Low</b>                     | 500             | 500             | 500                       |
|   | <b>High</b>                    | 2200-2300       | 2200-2300       | 2200-2300                 |
| $\alpha^\circ$                                |                                | 18              | 18              | 16                        |
| <b>Opacity value (k value) m<sup>-1</sup></b> |                                | 1.30            | 1.30            | 1.20                      |
| <b>Injection pump assembly</b>                |                                | 1 383 216       | 1 383 215       | 1 374 808                 |
| <b>Injector</b>                               | <b>Assembly</b>                | 1 397 000       | 1 397 000       | 1 381 219                 |
|   | <b>Holder (type)</b>           | KDEL97P13       | KDEL97P13       | KDEL97P53                 |
|   | <b>Scania part No.</b>         | 1 302 562       | 1 378 875       | 1 384 700                 |
|   | <b>Nozzle (type)</b>           | DLLA155P306     | DLLA155P306     | DLLA149P601               |
|   | <b>Scania part No.</b>         | 1 386 886       | 1 386 886       | 1 374 241                 |
|   | <b>Hole, Ø mm</b>              | 8 x 0.246       | 8 x 0.246       | 8 x 0.226                 |
|   | <b>Opening pressure bar *)</b> | 264 +/- 4       | 264 +/- 4       | 295 +/- 5                 |
|   |                                | (266 +/- 6)     | (266 +/- 6)     | (296 +/- 6) <sup>1)</sup> |

\*) Values within brackets are check values.

1) Dual-spring injector, only the first stage can be inspected.

|   |   |             |
|---|---|-------------|
| <b>Engine type</b>                            | <b>DC11 07</b>                            |             |
| <b>Max. output hp (kW)</b>                    | 330 (242)                                 |             |
| <b>Idle speed rpm</b>                         | <b>Low</b>                                | 500         |
|   | <b>High</b>                               | 2200-2300   |
| $\alpha^\circ$                                | 14  |             |
| <b>Opacity value (k value) m<sup>-1</sup></b> | 0.70                                      |             |
| <b>Injection pump assembly</b>                | 1 433 297                                 |             |
| <b>Injector</b>                               | <b>Assembly</b>                           | 1 434 235   |
|   | <b>Holder (type)</b>                      | KDEL109P62  |
|   | <b>Scania part No.</b>                    | 1 387 057   |
|   | <b>Nozzle (type)</b>                      | DLLA147P936 |
|   | <b>Scania part No.</b>                    | 1 434 238   |
|   | <b>Hole, Ø mm</b>                         | 8 x 0.22    |
|   | <b>Opening pressure bar <sup>*)</sup></b> | 283 +/- 5   |

| <b>Engine type</b>                            |   | <b>DSC12 01</b>          | <b>DSC12 02</b>          |
|---|---|--------------------------|--------------------------|
| <b>Max. output hp (kW)</b>                    |   | 400 (294)                | 360 (265)                |
| <b>Idle speed rpm</b>                         | <b>Low</b>                                | 500                      | 500                      |
|   | <b>High</b>                               | 2450-2550                | 2250-2350                |
| $\alpha^\circ$                                |   | 15                       | 14                       |
| <b>Opacity value (k value) m<sup>-1</sup></b> |   | 0.75                     | 0.92                     |
| <b>Injection pump assembly</b>                |   | 1 364 497                | 1 433 297                |
| <b>Injector</b>                               | <b>Assembly</b>                           | 1 373 002                | 1 373 002                |
|   |   | 1 387 056 <sup>3)</sup>  | 1 387 056 <sup>3)</sup>  |
|   | <b>Holder (type)</b>                      | KDEL109P47               | KDEL109P47               |
|   |   | KDEL109P62 <sup>3)</sup> | KDEL109P62 <sup>3)</sup> |
|   | <b>Scania part No.</b>                    | 1 373 003                | 1 373 003                |
|   |   | 1 387 057 <sup>3)</sup>  | 1 387 057 <sup>3)</sup>  |
|   | <b>Nozzle (type)</b>                      | DLLA147P538              | DLLA147P538              |
|   | <b>Scania part No.</b>                    | 1 364 500                | 1 364 500                |
|   | <b>Hole, Ø mm</b>                         | 8 x 0.22                 | 8 x 0.22                 |
|   | <b>Opening pressure bar <sup>*)</sup></b> | 279 +/- 4                | 279 +/- 4                |
|   |   | (277 +/- 6)              | (277 +/- 6)              |

\*) Values within brackets are check values.

3) Applies from engine number D12-5707810 onwards. The new injectors do not fit in old engines and vice versa. The cylinder head has been modified.

| Engine type                             |                                    | DSC14 13                           | DSC14 15                           |
|---|------------------------------------|------------------------------------|------------------------------------|
| Max. output hp (kW)                     |                                    | 530 (390)                          | 460 (338)                          |
| Idle speed rpm                          | Low                                | 500                                | 500                                |
|   | High                               | 2450-2550                          | 2450-2550                          |
| $\alpha^\circ$                          |                                    | 2.00 <sup>2)</sup>                 | 2.00 <sup>2)</sup>                 |
| Opacity value (k value) m <sup>-1</sup> |                                    | <b>L04</b> 1.07<br><b>L01</b> 0.83 | <b>L02</b> 1.00<br><b>L01</b> 0.85 |
| Injection pump assembly                 |                                    | 1 364 711                          | 1 364 711                          |
| Injector                                | Assembly                           | (cyl.1) 1 391 028                  | (cyl.1) 1 391 030                  |
|   |                                    | (cyl.2-8) 1 358 965                | (cyl.2-8) 1 384 170                |
|   | Holder (type)                      | (cyl.2-8)<br>KDEL99P39             | (cyl.2-8) KDEL99P39                |
|   | Scania part No.                    | 1 347 350                          | 1 347 350                          |
|   | Nozzle (type)                      | (cyl.2-8)<br>DLLA152P496           | (cyl.2-8)<br>DLLA150P573           |
|   | Scania part No.                    | 1 360 009                          | 1 375 440                          |
|   | Hole, Ø mm                         | 8 x 0.25                           | 8 x 0.23                           |
|   | Opening pressure bar <sup>*)</sup> | 319 +/- 4                          | 289 +/- 4                          |
|   |                                    | (317 +/- 6)                        | (287 +/- 6)                        |

\*) Values within brackets are check values.

2) After TDC.