



Latest modification date: 030401

Basic data

General

| | | |
|---------------------------------------|------------------|-----------------------|
| Configuration and number of cylinders | ..... | 6 in-line |
| Working principle | ..... | 4 stroke |
| Bore x stroke | mm | 127 x 154 |
| Displacement | dm ³ | 11,70 |
| Compression ratio | ..... | 16:1 |
| Firing order | ..... | 1 - 5 - 3 - 6 - 2 - 4 |
| Piston speed | | |
| at 1500 r/min | m/s | 7,70 |
| at 1800 r/min | m/s | 9,24 |
| Rotation, seen from flywheel end | ..... | Counter clockwise |
| Moment of inertia | | |
| with flywheel for 14" coupling | kgm ² | 2,74 |
| Number of teeth on flywheel ring gear | ..... | 158 |
| Weight approx., excl. oil and coolant | | |
| with fan, radiator and expansion tank | kg | 1065 |

Lubrication system

| | | |
|------------------------------|-----------------------|---|
| Oil capacity | dm ³ , min | 28 |
| | max | 33 |
| Oil consumption | g/kWh | < 0,3 |
| Oil change intervals | h | 400 |
| Oil grade | ..... | CE or CF acc. to API CCMC D5 Acea E3-96 |
| Oil Pressure | | |
| Normal | bar | 3 - 6 |
| Minimum permitted | bar | 0,7 |
| Oil temperature | | |
| Maximum permitted | °C | 120 |
| Oil cleaner | ..... | Paper and centrifugal |
| Filtration | Micron | 5 - 7 |
| Oil filter for turbo charger | ..... | Paper |
| Oil cooler | ..... | Water cooled/Full flow |



Injection system

| | | |
|-------------|-------|---------------------------------------|
| Type | ..... | Electronic Unit Injectors |
| Governor | | Scania Engine Management System (EMS) |
| Fuel filter | ..... | Paper filter element |

Cooling system

| | | | |
|--------------------------------|-----------------|-------|---------|
| Coolant volume, excl. radiator | dm ³ | ..... | 22 |
| Coolant temperature | °C | ..... | 75 - 85 |
| Number of thermostats |  | ..... | 1 |
| Opening temperature | °C | ..... | 75 |

Intake system

| | | | |
|---|------|-------|-----|
| Permissible pressure drop in intake system with cleaned or new filter | mmWc | ..... | 300 |
| Permissible pressure drop in intake system with blocked (dirty) filter | mmWc | ..... | 500 |

Electrical system, optional equipment

| | | | |
|-----------------------------------|-------|-----------------------|------|
| Type | ..... | 1-pole, 24 V, DC | |
| Optional | ..... | 2-pole, 24 V, DC | |
| Starter, standard equipment | ..... | 1-pole, 24 V - 6.7 kW | |
| Optional | ..... | 2-pole, 24 V - 6.7 kW | |
| Alternator, standard equipment | ..... | 1-pole, 28 V - 65 A | |
| Optional | ..... | 2-pole, 28 V - 65 A | |
|  | ..... | 1-pole, 28 V - 90 A | |
| Stop solenoid, optional equipment | | | |
| Needed power to pull | A | | 39 |
| Needed power to hold | A | | 0.46 |



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Technical data and cooling equipment recommendation

DC12 54A, order ref 10-84

| | | 1500 r/min | | 1800 r/min | |
|---|--------|------------|------|------------|------|
| | | PRP | ESP | PRP | ESP |
| Gross power | kW | 359 | 405 | 380 | 405 |
| Specific fuel consumption | g/kWh | | | | |
| full load | | 193 | 199 | 196 | 199 |
| 3/4 load | | 190 | 190 | 193 | 193 |
| 1/2 load | | 194 | 193 | 197 | 196 |
| Heat rejection | kW | | | | |
| to cooling water | | 134 | 154 | 138 | 149 |
| to exhaust gas | | 248 | 296 | 271 | 298 |
| to charge air | | 58 | 75 | 72 | 81 |
| to surrounding air | | 31 | 36 | 32 | 35 |
| Air consumption | kg/min | 27 | 30 | 33 | 34 |
| Air temperature after charge air cooler | °C | 48 | 56 | 54 | 57 |
| Fall of pressure, charge air cooler | Bar | 0,09 | 0,10 | 0,12 | 0,13 |
| Exhaust flow | kg/min | 28 | 31 | 34 | 35 |
| Exhaust temperature | °C | 509 | 537 | 465 | 489 |

| | | 1500 r/min | | | | 1800 r/min | | | |
|--------------------------------|----------------------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|
| | | PRP | | ESP | | PRP | | ESP | |
| | | Air-on temp. | | Air-on temp. | | Air-on temp. | | Air-on temp. | |
| | | 35 °C | 50 °C | 35 °C | 50 °C | 35 °C | 50 °C | 35 °C | 50 °C |
| Radiator | | | | | | | | | |
| front area | m ² | 1.0 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| weight | kg | 55 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Coolant pump flow | dm ³ /min | 300 | 290 | 290 | 290 | 350 | 350 | 350 | 350 |
| Fan | | | | | | | | | |
| type | | Pusher | Pusher | Pusher | Pusher | Pusher | Pusher | Pusher | Pusher |
| Ø | mm | 912 | 912 | 912 | 912 | 912 | 912 | 912 | 912 |
| power losses | kW | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| number of drive belts (poly-V) | | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| speed ratio | | 1:1 | 1:1 | 1:1 | 1:1 | 1:1,08 | 1:1,08 | 1:1,08 | 1:1,08 |
| Air flow | | | | | | | | | |
| free air flow | m ³ /s | 8.0 | 8.8 | 8.8 | 8.8 | 7.8 | 7.8 | 7.8 | 7.8 |
| pressure reserve | mm Wc | 25 | 22 | 25 | 20 | 25 | 20 | 16 | 10 |