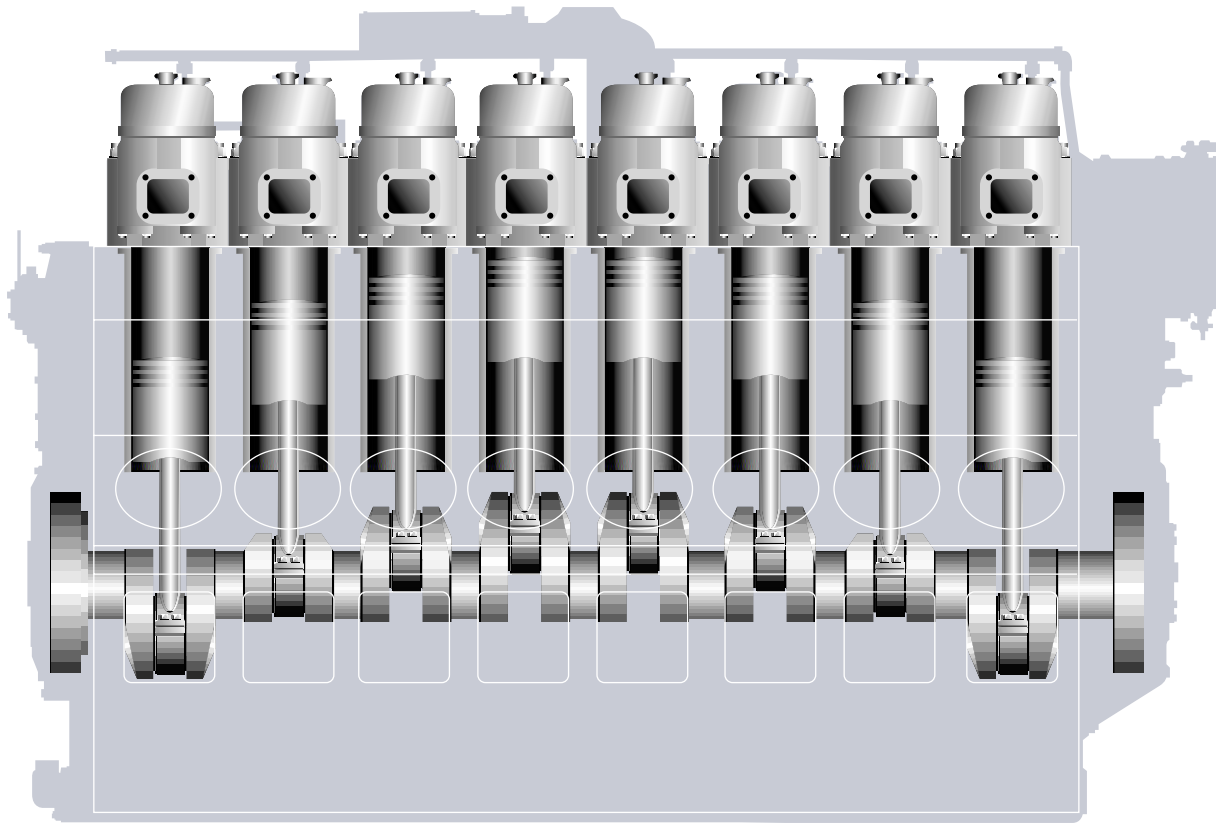


GIVE YOUR ENGINE A NEW LEASE ON LIFE!



The Major ECOS® - Engine Overhaul



With the major ECOS® - engine overhaul we offer you a comprehensive project handling including inspection, disassembly and operation restart. Our experienced specialists execute all services smoothly and on time.

A main feature of our large revision is the precise analysis of the condition of all individual components of your engine. Only after a thorough examination we decide together with you on the extent of the reconditioning and replacement of parts.

See the overleaf for the scope of services included in the **Major ECOS® - Engine Overhaul.**

Talk to us and see for yourself our range of services!



We are on the move

The Major ECOS® - Engine Overhaul Overview of our services:

1

Standard service for reconditioning engines

- **crankcase**
 - measurement of the main bearing bore and the reworking if necessary
 - replacement of the main bearings
 - measurement of the camshaft bore and bearings and their reworking if necessary
 - replacement of the camshaft bearings if necessary
- **crankshaft**
 - testing for cracks and for concentric running
 - preparation of a data sheet
 - polishing, grinding if necessary
- **cylinder liners**
 - replacement if necessary
- **pistons**
 - dismantling, cleaning, evaluation, replacement if necessary
 - preparation of a data sheet
 - replacement of the piston rings
- **connecting rods**
 - dismantling, cleaning, evaluation, overhaul or replacement if necessary
 - preparation of a data sheet
 - optional – ECOS® exchange connecting rods
- **camshaft**
 - testing and polishing, overhaul or replacement if necessary
- **tappet**
 - replacement if necessary
- **overhaul of the cylinder head**
 - ECOS® cylinder head, see separate description of this service - programme
 - optional – ECOS® exchange head

2

Standard service for overhauling components

- **spark plugs / injection nozzles**
 - replacement
 - **oil pump**
 - dismantling, cleaning, evaluation
 - fitting with the required new parts, replacement if necessary
 - **oil cooler**
 - dismantling, cleaning, evaluation, and testing under pressure (standard new parts – gaskets and washers)
 - fitting with the required new parts, replacement if necessary
 - **piston cooling**
 - cleaning and checking of the functioning
 - **gearbox**
 - replacement of the gear wheels as required
 - **vibration damper**
 - replacement if necessary
 - **replacement of all required gaskets and washers, shaft sealing rings and o-ring seals.**
 - **engine assembly**
- **water pump**
 - dismantling, cleaning, evaluation
 - fitting with the required new parts
 - **starter**
 - dismantling, cleaning, evaluation
 - fitting with the required new parts (standard new parts – bearings, sleeves)
 - **throttle valve and governor lever**
 - dismantling, cleaning, evaluation
 - fitting with the required new parts
 - **mixture cooler / charge air cooler**
 - cleaning, evaluation, pressure testing

3

Reinstallation of the engine, start up and handing it over to the customer (operator)

- **carburetor / injection pump**
 - dismantling, cleaning, evaluation
 - fitting with the required new parts (standard new parts – membranes and gaskets and washers)
 - test stand run of the injection pump
 - **turbocharger**
 - reconditioning
 - dismantling, cleaning, evaluation
 - fitting with the required new parts
 - **exhaust gas collecting pipe**
 - visual evaluation - fitting with the required new parts or complete replacement
 - replacement of insulation if necessary
 - **assembly of the engine mounting of all components**
 - complete assembly of the engine
 - leak test
 - painting of the engine as requested by the customer or with the original colour
- **reinstallation**
 - transport
 - unloading
 - emplacement
 - placing and mounting of the engine / power unit (STORM or customer)
 - leak test
 - testing and readjustment of the engine or power unit parameters
 - **start up**
 - ignition adjustment
 - engine test run on site in three load stages
 - documented inspection of the exhaust data
 - **handing the engine over to the customer with a final consultation**
 - certificate of acceptance (start-up report)
 - begin of the warranty

