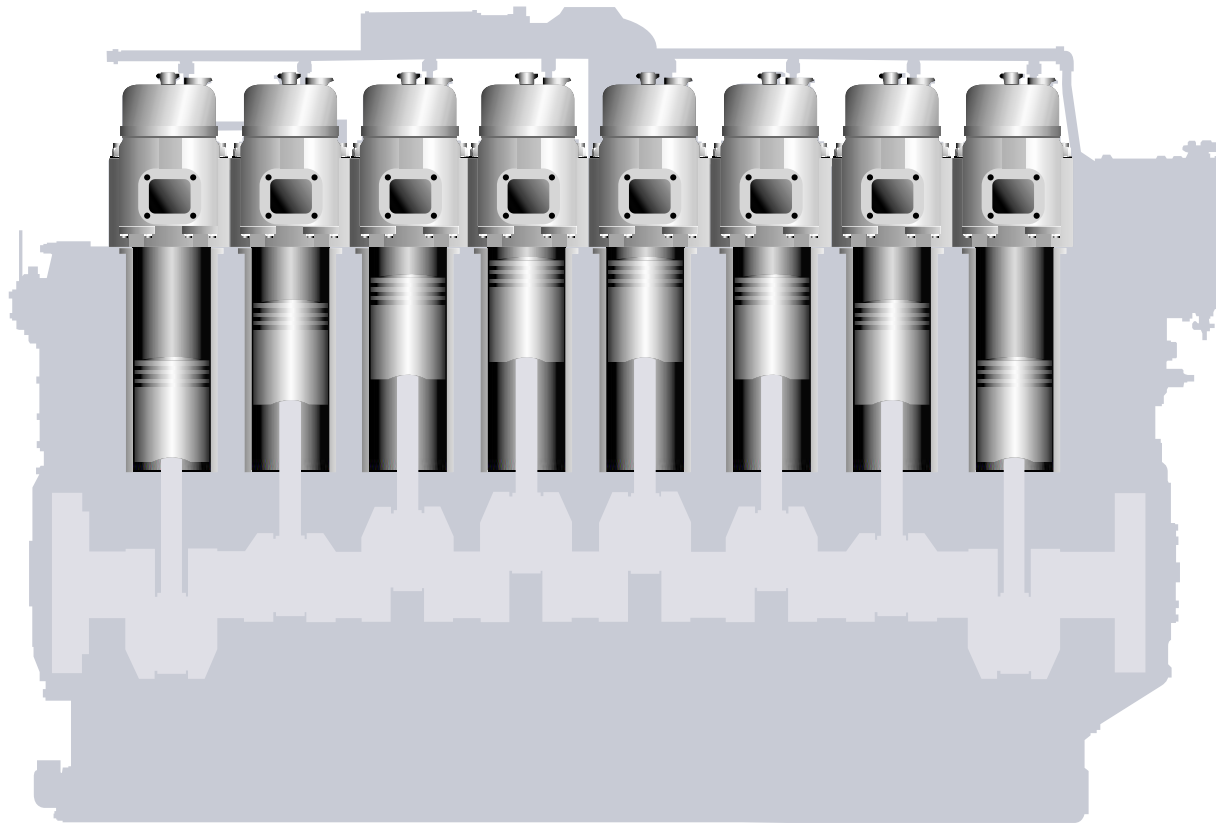


FOR ALL THOSE WHO WANT TO OVERHAUL RAPIDLY AND SAFELY!



The Minor ECOS® - Engine Overhaul



Heads, pistons, sleeves - are the key words for the minor ECOS® engine overhaul. With over 65 years experience in component reconditioning, we have built a service programme for our customers that ensures a smooth and flawless overhaul with the shortest possible down time and a precise, appropriate reconditioning of all engine parts.

We go through everything with you in detail before the reconditioning starts. And everything comes from one source - from inspection to the start-up operation.

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

See for yourself what we have to offer!

We are on the move



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

1 Preparatory work, dismantlement, evaluations

- dismantling of the engine
- cleaning of the parts
- evaluation together with the customer (operator) or external consultants
- determination of the exact scope of the reconditioning by the customer
- change of the quotation or, respectively, agreement
- increasing / decreasing the scope of the reconditioning

2 Standard service for the reconditioning of the engine

- **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
 - optional – ECOS® exchange connecting rods
- **spark plugs / injection nozzles**
 - replacement

3 Standard service for the overhauling of components

- **oil cooler**
 - dismantling, cleaning, evaluation, and pressure testing (standard new parts – gaskets and washers)
 - fitting with the required new parts
 - replacement if necessary
- **vibration damper**
 - replacement if necessary
- **replacement of all required gaskets and washers, shaft sealing rings and o-ring seals.**
- **assembly of the engine**
- **circulation pump**
 - dismantling, cleaning, evaluation
 - fitting with the required new parts
- **throttle valve and governor lever**
 - dismantling, cleaning, evaluation
 - fitting with the required new parts
- **mixture cooler / charge air cooler**
 - visual inspection
 - cleaning if necessary
- **carburetor / injection pump**
 - visual inspection, cleaning if necessary
- **turbocharger**
 - reconditioning or replacement if necessary
- **exhaust gas collecting pipe**
 - reconditioning or replacement if necessary

4 Assembly of the engine and the mounting of all components

- complete assembly of the engine
- leak test

5 Scope of the reconditioning of the power unit

- **always in agreement with the customer (operator) the evaluation of the condition of the:**
 - catalytic converter (if applicable)
 - exhaust heat exchanger
 - clutch
 - elastic bearings
 - generator

6 Start up of the engine handing it over to the customer (operator)

- **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

