

Gearbox repair

The Service Department of Stork Gears & Services has had decades of experience in the overhaul of gearboxes. As a make-independent repair company in mechanical drives, we overhaul all sorts and types of gearboxes and related drives. We are active in various branches, where most of our orders have an extremely short completion time.

Approach

The specialisation determines our repair approach. The procedure below is followed when the service request concerning gearboxes arrives. This can be done both on site and in our workshop:

- Determination of the condition of the gearbox. This determines bearing settings, gear clearance and gearing size.
- Careful dismantling of the gearbox, compilation of an inspection report and performance of a damage analysis in order to pass on improvement proposals better in consultation with engineering and the client.
- Overhaul proposal and quotation to inform the client about the scope and cost of the project.



Once the above procedure has been executed, assembly follows delivery of the purchase and manufacturing parts in which:

- The gearbox with new parts is installed.
- Bearing and gear clearance are adjusted and contact patterns are recorded. Stork Gears & Services can grind the gears in our gear-cutting department if due to circumstances the gear clearance or contact patterns are not in accordance with the specifications, after which the gearbox will be within the specifications.
- Once the gearbox has been assembled correctly, it will be tested for 4 hours on our trial bench.
- All results will be recorded in our report, which will be handed to the client complete with all documents (and possibly certificates) after overhaul.

Facilities

The service department has a wide range of special tools in order to carry out specialised work. These tools consist for example of a 250 ton vertical hydraulic press, hydraulic pulley pullers, a Hytorc force multiplier, induction heater, nitrogen bath, mobile workshop, etc. With all these facilities we are able to do give good field-service. It is also possible to do a complete gearbox overhaul on location.

We also have 6 alignment computers with which we rapidly and adequately perform shaft alignments on site of all possible sorts of equipment. This service as well as the repairs, inspections and start-ups of gearboxes are carried out by Stork Gears & Services throughout the world.

Our 24-hour service '*all over the world*' offers our clients a total accessibility and a service-orientated deployment in which reliability, quality and speed are our most important driving forces. Stork Gears & Services always has service engineers ready to assist you anywhere in the world.

Testing plant

An important last step in the overhaul process is the trial run of an overhauled idling gearbox on our testing plant. This testing plant is an area of 60 m² where our trial run procedure can be run through with 5 gearboxes simultaneously.

It is possible to test up to a power of 187 kW and a rpm of approx. 20,000. These high rpms are attained using a 'speed-up' gearbox. The gearbox is operated for 4 hours during this procedure, in which the following parameters can be analysed:

- Temperature
- Vibrations
- Noise
- Oil viscosity

All testing data is recorded in a test report, which will be sent to the client and filed by us.

