



Service Letter

SL02-405/CBO  
June 2002

**Check of Camshaft Coupling Fitted Bolts**  
**All engine types**  
Action Code: IMMEDIATELY

Dear Sirs

As we occasionally still see cases of broken camshaft coupling bolts, we have decided to update our "Checking and Maintenance Schedules" and introduce an annual check of these bolts.

A Service Letter, ref. [SL99-368/CBO](#), dealing with this subject, was issued in 1999. However, in view of the consequences for the vessel in the event of a failure, we wish to emphasize the importance of a regular check of these coupling bolts, as part of the standard checking procedures applicable throughout the lifetime of the engine.

For your information we enclose an example of our standard Checking and Maintenance Schedule (No. 900-1) specifying a survey every 8000 hrs.

For your easy reference, we also enclose our instruction No. S906-4 which, for future plants, will be adapted to the specific engine type.

Questions or comments regarding this SL should be directed to our Dept. 4100.

Yours faithfully

MAN B&W Diesel A/S

Two handwritten signatures in black ink. The first signature is 'Otto Winkel' and the second is 'Carsten B. Ostenfeldt'. Both signatures are written in a cursive, flowing style.

Otto Winkel                      Carsten B. Ostenfeldt

Encl.

V : See Volume I "Operation"  
 A : Adjustment to be carried out  
 C : Check the condition  
 M : See maker's instructions  
 O : Overhaul to be carried out  
 R : Parts to be replaced

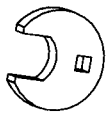
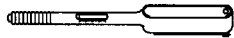
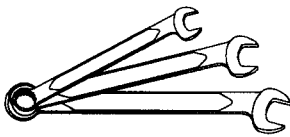
H : Check new/overhauled parts after 500-1500 hours  
 B : Based on observations  
 P : Overhaul to be based on procedure No. or refer to

No.	Procedure	H	Normal hours of service (x1000)						B	P
			2	4	6	8	16	32		
<b>906 Mechanical Control Gear</b>										
-1	Chain	C				C			V	
-2	Chain Tightener	C						A		
-3	Camshaft	C				C		A,C		
-4	Camshaft Bearings					C		O,C		
	Camshaft Coupling, Fitted bolts					C				
<b>907 Starting Air System</b>										
-1	Starting Air Distributor	C				C		A		
-2	Starting Air Valve					O,C				
	Governor, change of oil			O					M	
	Functional check of overspeed device					C			M	
	Functional check of speed-setting system (engine with bridge control system)			C					M	
<b>908 Exhaust Valve</b>										
-1	High-Pressure Pipe							O		
-2	Exhaust Valve									
	<b>Conventional</b> hard-faced valve seats; overhaul at intervals of 6000 hours				O					
	<b>Nimonic</b> exhaust valves; check new valves after 6000 hours subsequently, overhaul at intervals of 16000 hours				C	O				
-3	Exhaust Valve Actuator					O				
-4	Exhaust Valve Roller Guide	C				C		O	V	
-5	Exhaust Valve Cam							C		
-7	Exhaust Valve Special Running							C		
<b>909 Fuel Oil System</b>										
-1	Fuel Pump Lead							A,C	V	
-2	VIT System							A		
-3	Fuel Pump Cam							A	909-1	

## Safety Precautions

- Stopped engine
- Block the starting mechanism
- Shut off starting air supply
- Engage turning gear
- Shut off cooling water
- Shut off fuel oil
- Shut off lubrication oil
- Lock turbocharger rotors

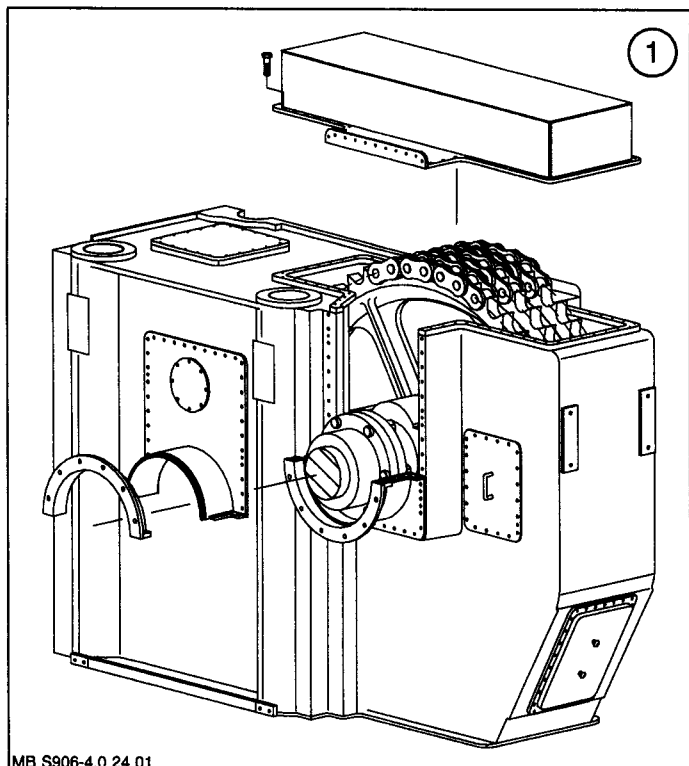
Standard tools: see Section 913



D-4:

### Tightening torques

S/K/L 50 MC	300 Nm
S/K/L 60 MC	460 Nm
S/L 70 MC	700 Nm
S/K/L 80 MC	985 Nm
S/K/L 90 MC	1350 Nm



1. In order to gain access to the camshaft coupling bolts, remove one or all of the following:

- the top guard
- the split flange
- the scraper ring

The extent of the disassembling should be evaluated individually in each case.

2. Check the connection between the camshaft coupling flanges with a 0.05 mm feeler gauge.

If any gap can be measured on the entire circumference of the couplings, MAN B&W Diesel or the engine manufacturer should be contacted for further instructions.

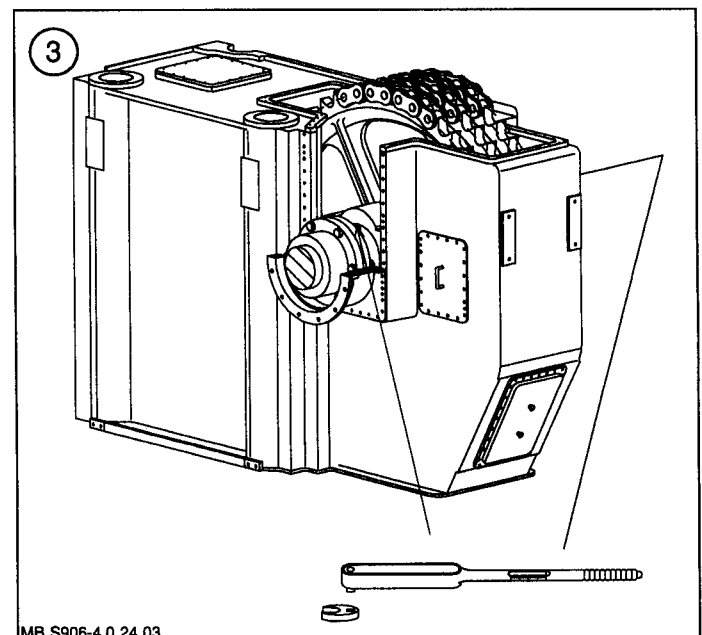
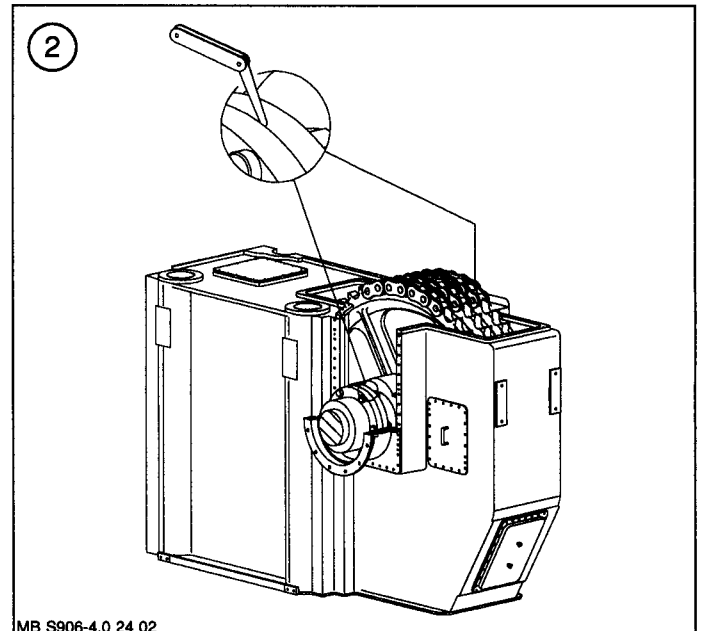
3. Remove the locking wire, if provided, from the nuts on the camshaft coupling bolts.

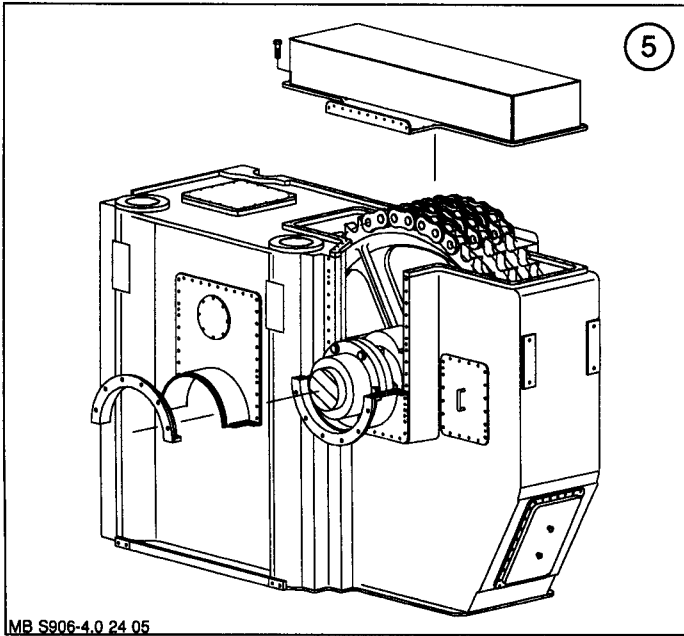
Check the tightening torque of the camshaft coupling bolts.  
*See Data D-4.*

If the torque needed to move the nut deviates LESS than 25% from the value in D-4, the torque is considered to be within limits.

If, however, the torque needed to move the nut deviates MORE than 25% from the value in D-4, retighten the nut as stated in D-4 and recheck the torque after 500-1500 hours of running.

If, during rechecking the torque, it again deviates MORE than 25% from the value in D-4, MAN B&W Diesel should be contacted for further instructions





4. Mount the locking wire securing the nuts on the camshaft coupling bolts. See *Volume II Maintenance, Chapter 913*.
5. Assemble the top cover, split flange, etc., with liquid gasket/gasket in relevant places.

Tighten all bolts.