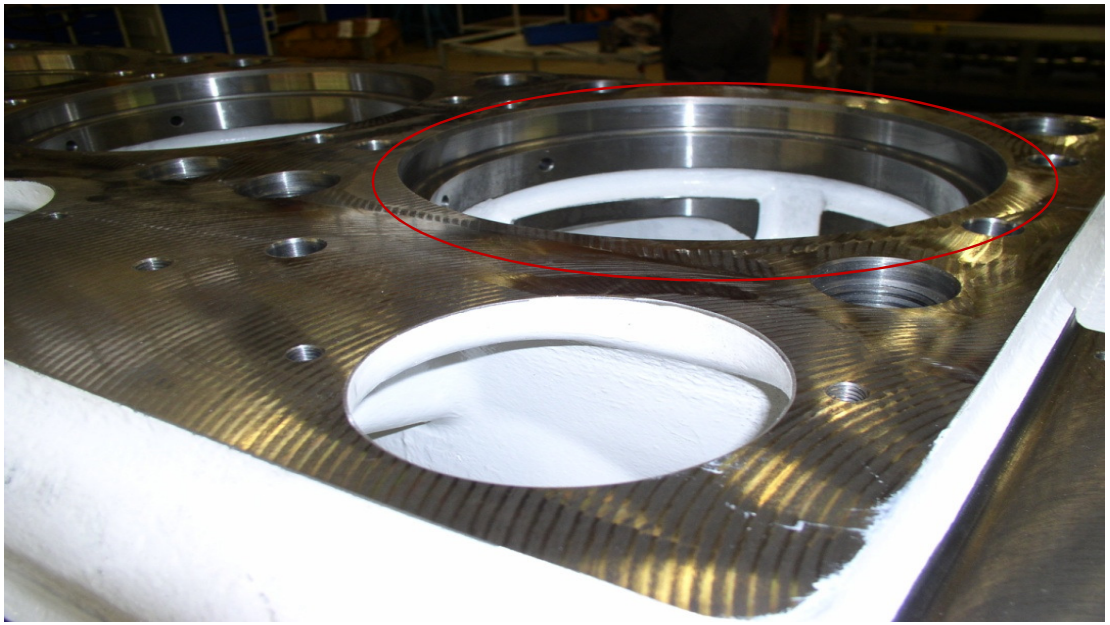
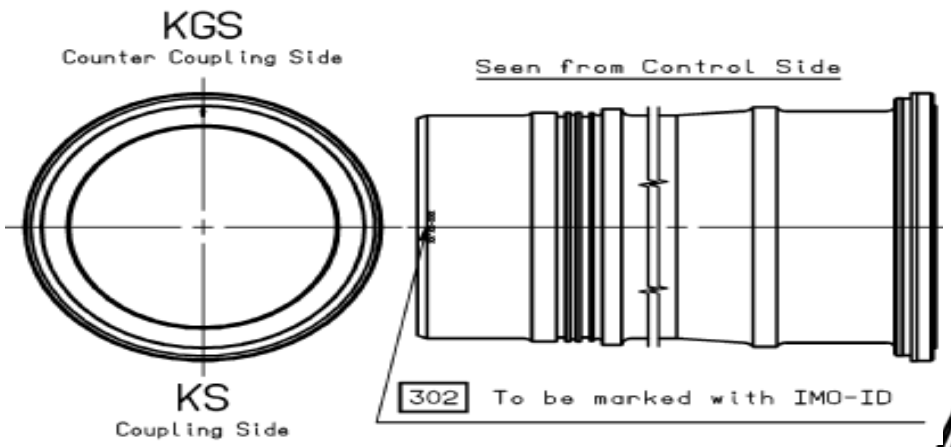
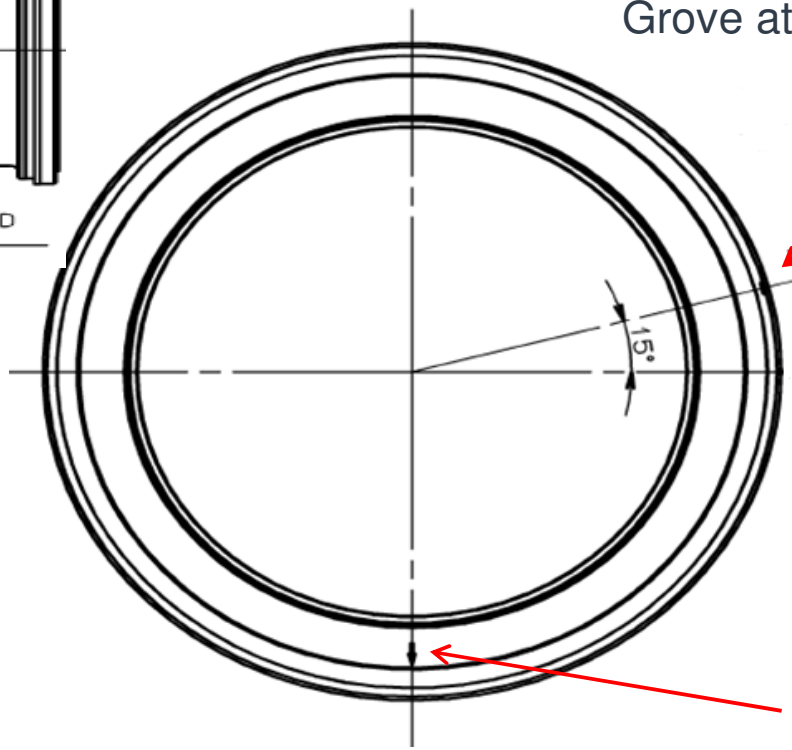
L23/30H Piston, Con. Rod and Cyl. Liner
- Cylinder liner

The cylinder liner is made of fine grained cast iron and is fitted in a bore in the engine frame.



L23/30H Piston, Con. Rod and Cyl. Liner
–Liner markings





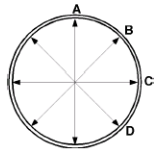
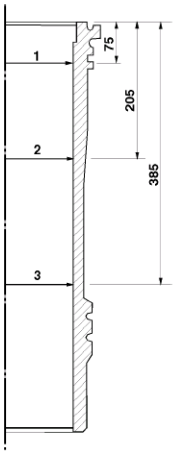
Grove at the collar V-engine only

ST: Steuer Seite/
Maneuvering side

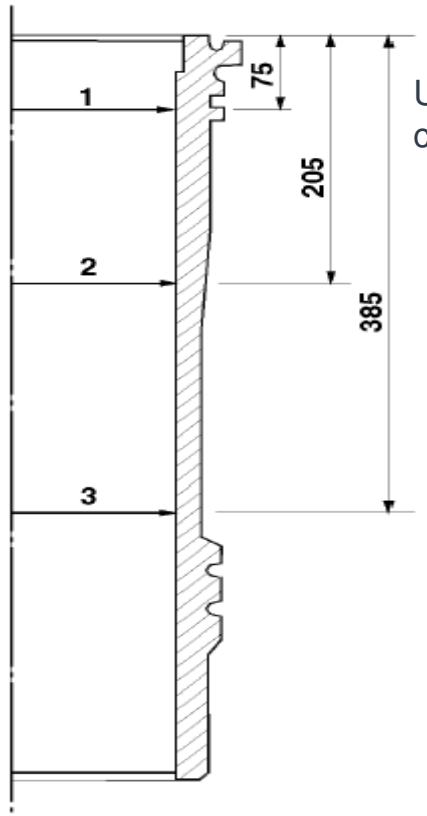
Marking for front: Arrow
ore “Fore”

L23/30H, Piston, Con. Rod and Cyl. Liner
–Measuring report

Measurements of Cylinder Liner L28/32H (with flame ring)

Plant/ship:			Engine Type:			Engine No.:	
Date:	Sign.:	Cyl. no.	Pos.	☐ A-side A	B	☐ B-side C	D
Running hours:		1	1				
Fuel: cSt			2				
Separator: Yes			3				
		2	1				
			2				
			3				
		3	1				
			2				
			3				
		4	1				
			2				
			3				
		5	1				
			2				
			3				
		6	1				
			2				
			3				
		7	1				
			2				
			3				
		8	1				
			2				
			3				
Tem. of cyl. liner	25°C	9	1				
Nom. diameter	280H8		2				
Minimum	280.0		3				

10023-1EX/H5810/1997.07.01(5)

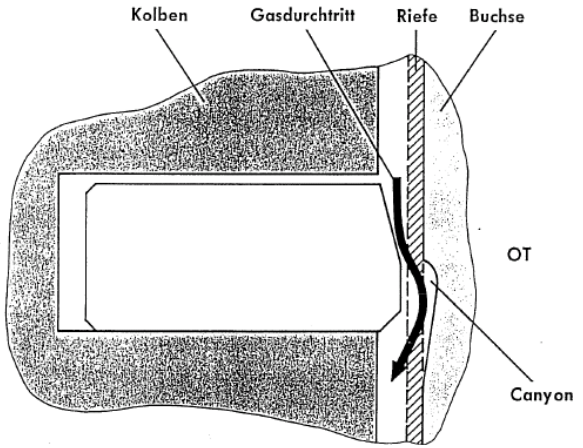


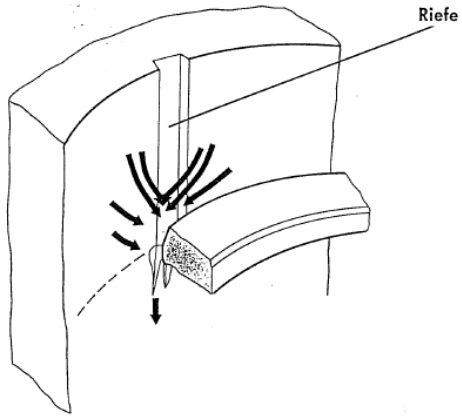
Uppermost dead point, compression ring no.: 1

Highest piston speed, compression ring no.: 1

Lowest dead point, compression ring no.: 1

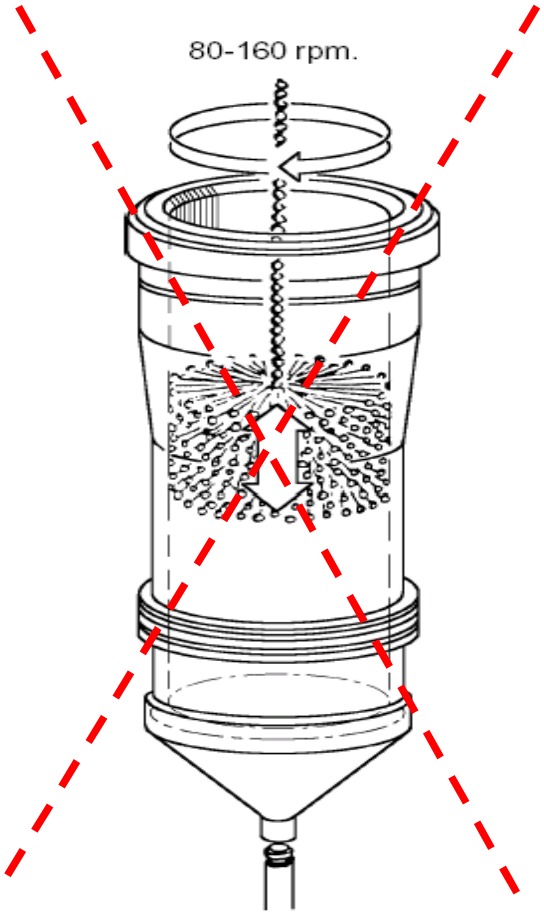
L23/30H, Piston, Con. Rod and Cyl. Liner *-Canyons in liner surface*



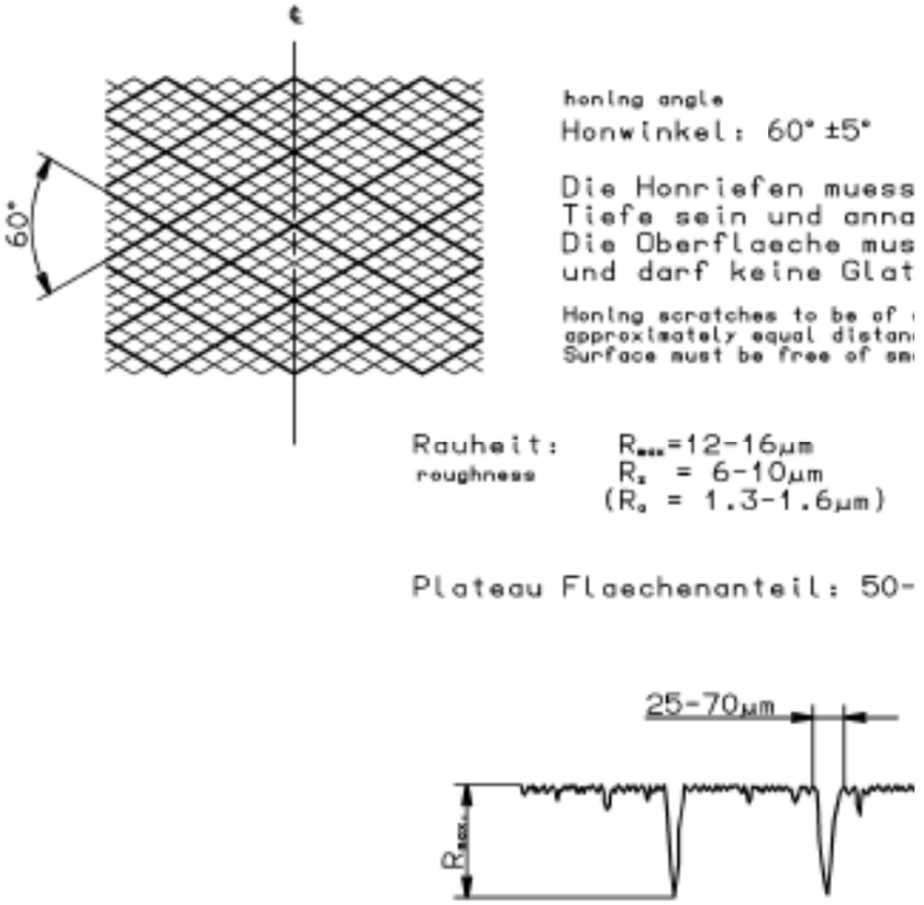


L23/30H, Piston, Con. Rod and Cyl. Liner
- Honing brush = Cleaning

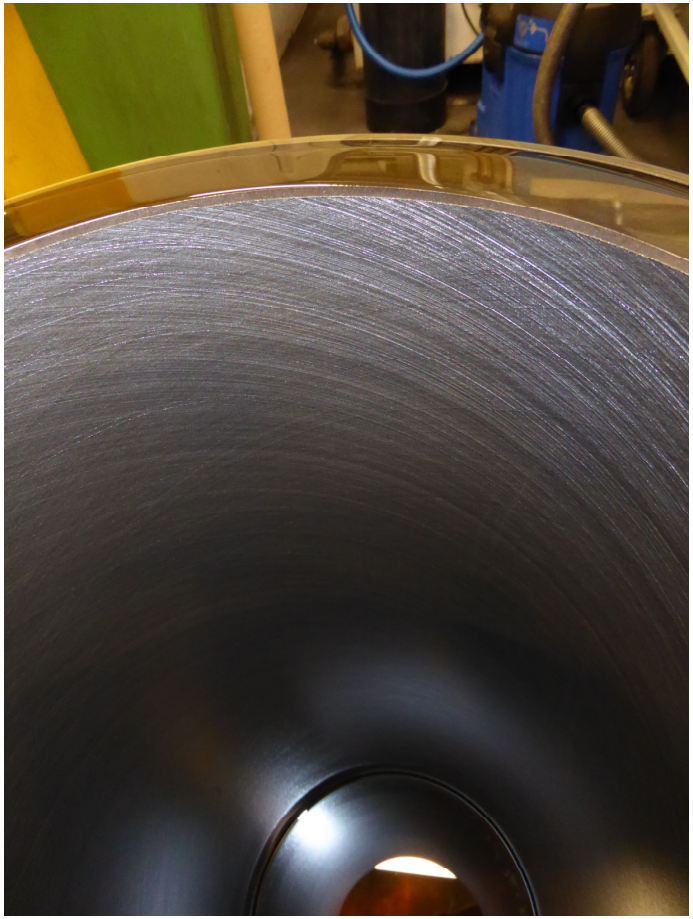
Honing brush for cleaning & rough up only
Pockets as in previous slide can not be restored by brush!



-L23/30H, Piston, Con. Rod and Cyl. Liner
-Liner Geometry

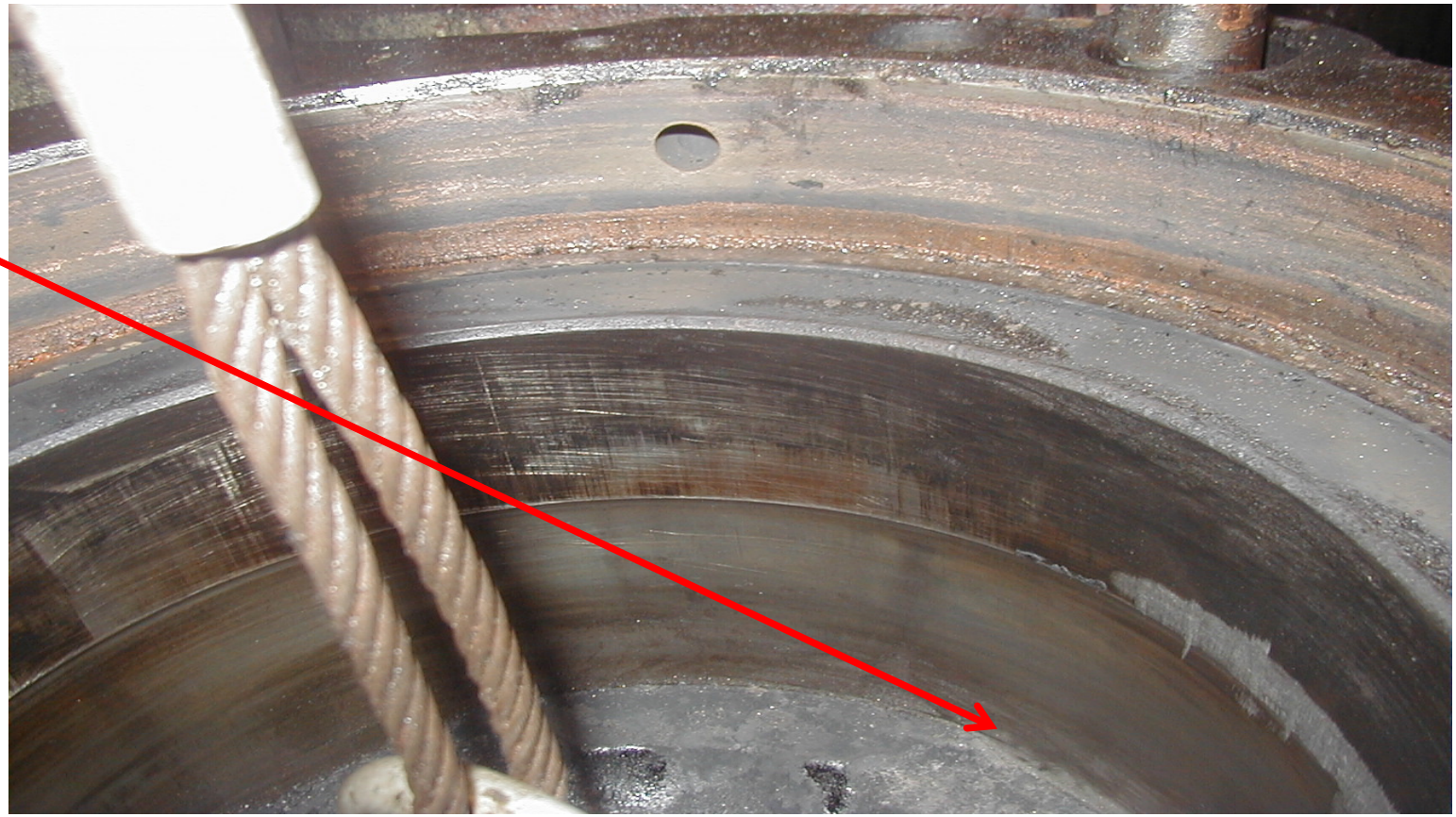


L23/30H, Piston, Con. Rod and Cyl. Liner
- Before and after correct honing



L23/30, Piston, Con. Rod and Cyl. Liner
- Removal of flame ring

In order to lift flame ring – use old piston ring on top of piston



L23/30H, Piston, Con. Rod and Cyl. Liner
- Cylinder Liner cavitations

MAN Diesel & Turbo 010.000.023-13

Specification of engine coolant

D010.000.023-13-0001

Preliminary remarks

An engine coolant is composed as follows: water for heat removal and coolant additive for corrosion protection.

As is also the case with the fuel and lubricating oil, the engine coolant must be carefully selected, handled and checked. If this is not the case, corrosion, erosion and cavitation may occur at the walls of the cooling system in contact with water and deposits may form. Deposits obstruct the transfer of heat and can cause thermal overloading of the cooled parts. The system must be treated with an anticorrosive agent before bringing it into operation for the first time. The concentrations prescribed by the engine manufacturer must always be observed during subsequent operation. The above especially applies if a chemical additive is added.

Requirements

Limit values

The properties of untreated coolant must correspond to the following limit values:

Properties/Characteristic	Properties	Unit
Water type	Distillate or fresh water, free of foreign matter.	-
Total hardness	max. 10	°dH*
pH value	6.5 – 8	-
Chloride ion content	max. 50	mg/l**

Table 1: Coolant - properties to be observed

Example of cavitation…..

Go to: Media spec. section 504