

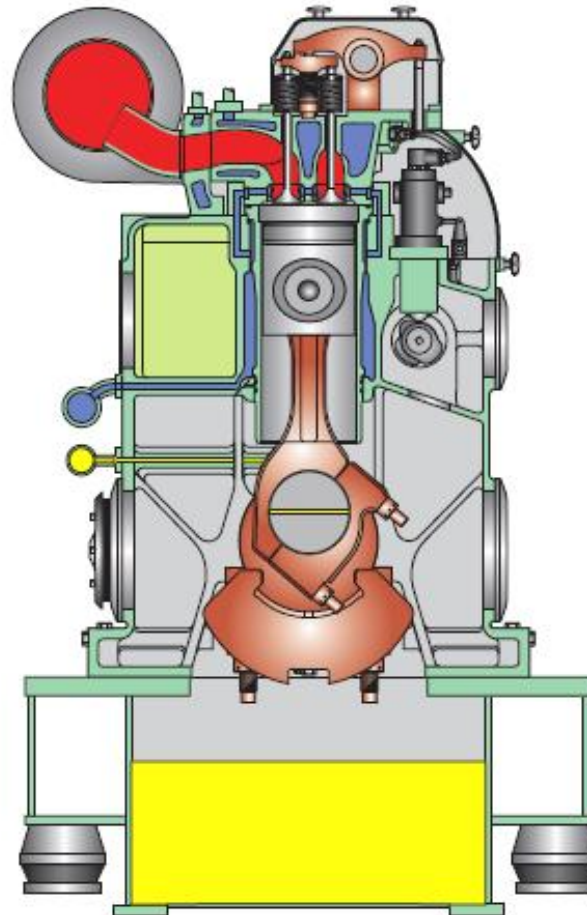
L23/30H-L28/32H Engine Frame & Oil pan



L23/30H-L28/32H Engine frame



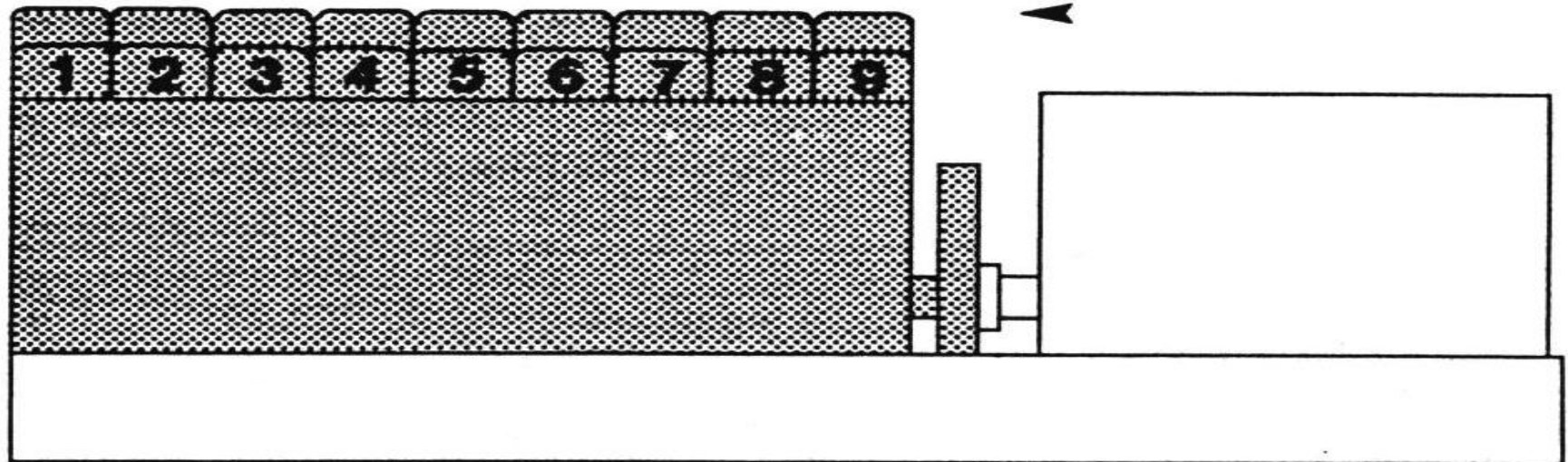
Cross Section



L23/30H-L28/32H Engine frame



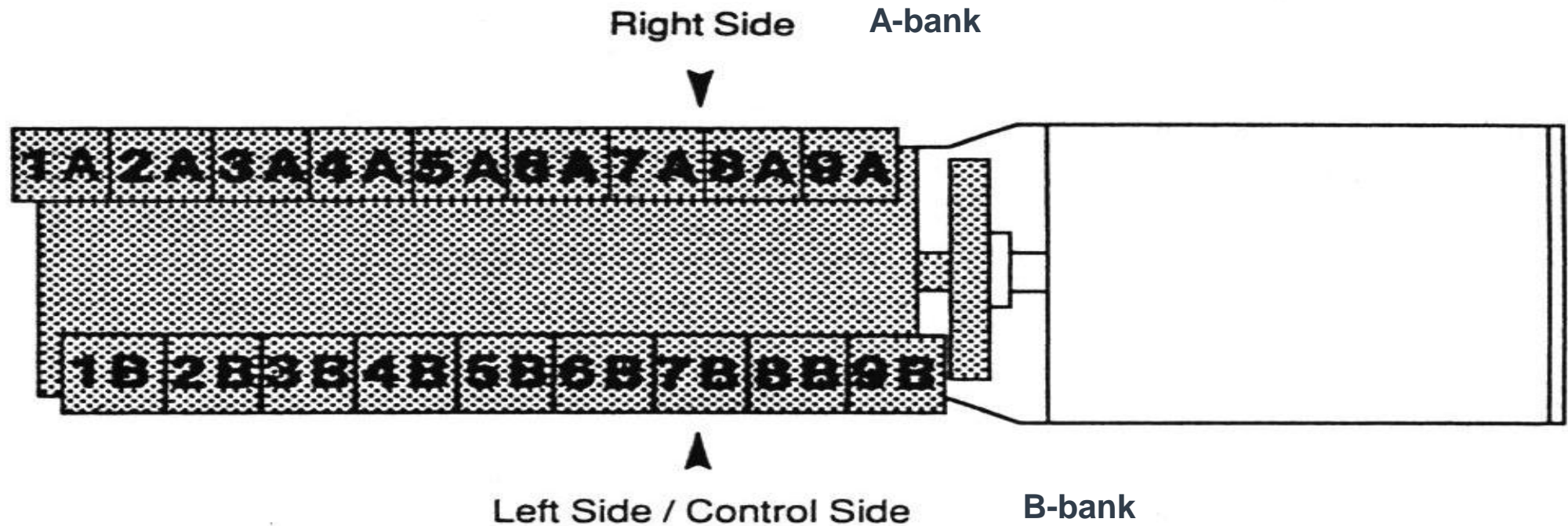
Front End



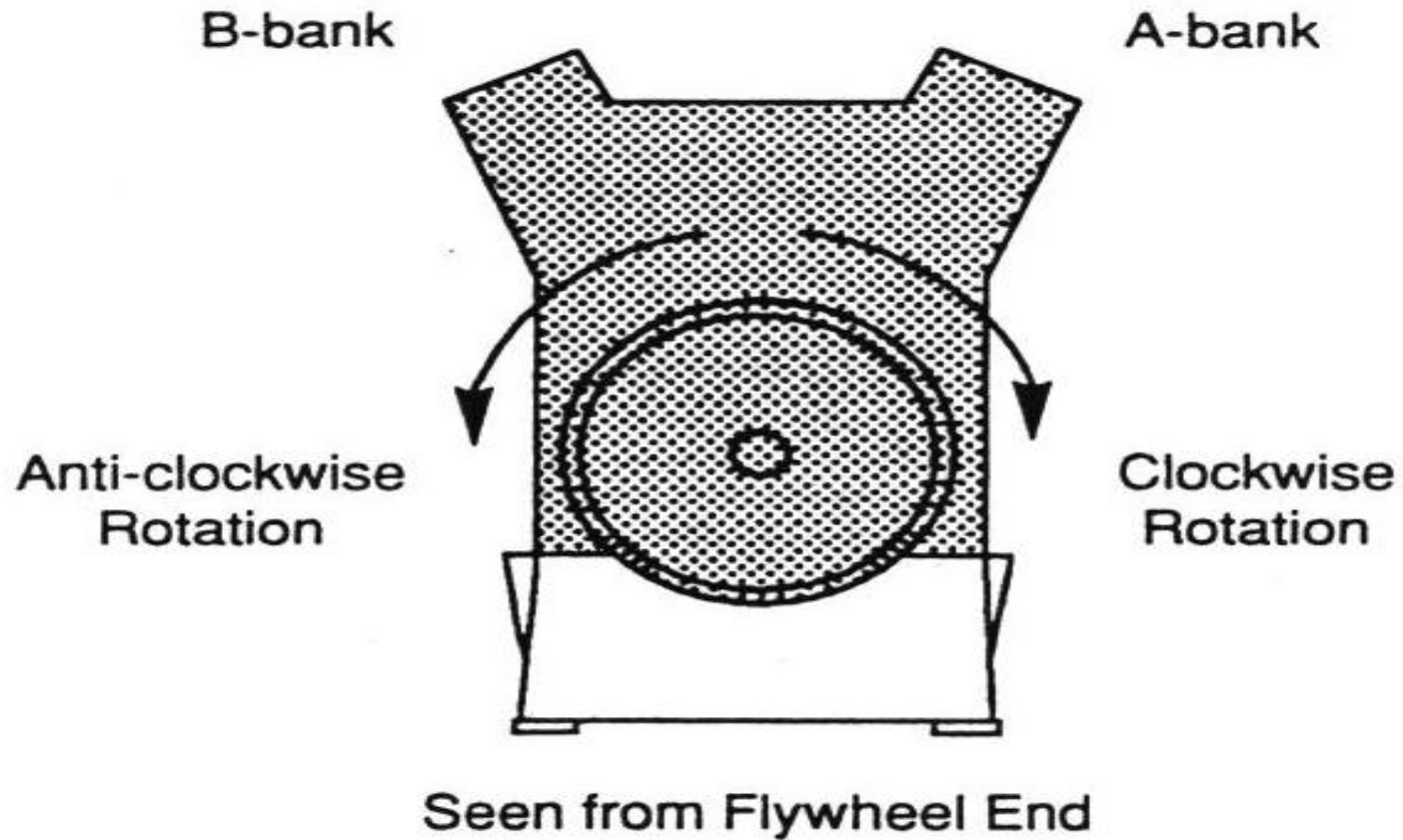
Flywheel end



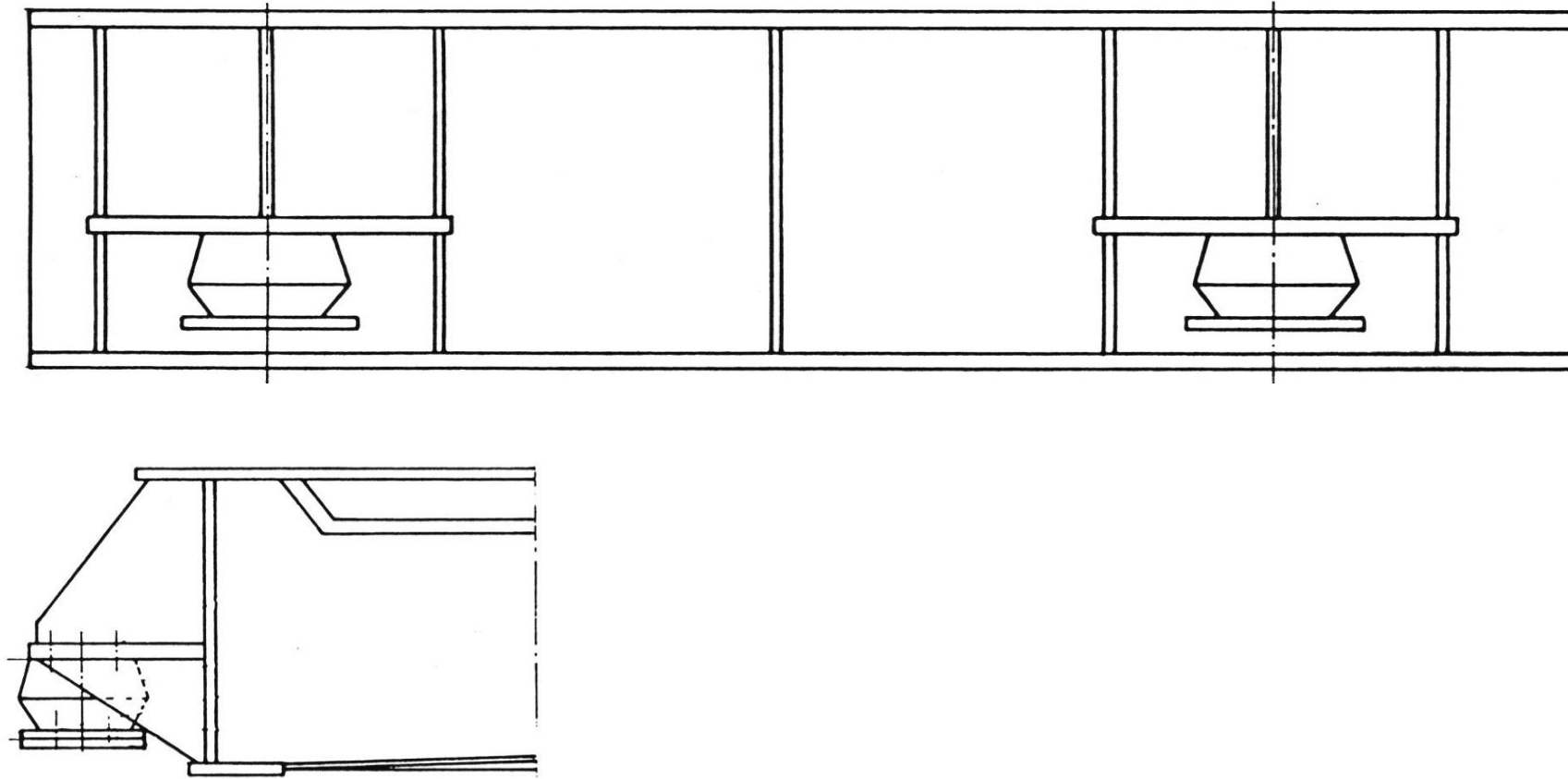
L23/30H-L28/32H Engine frame



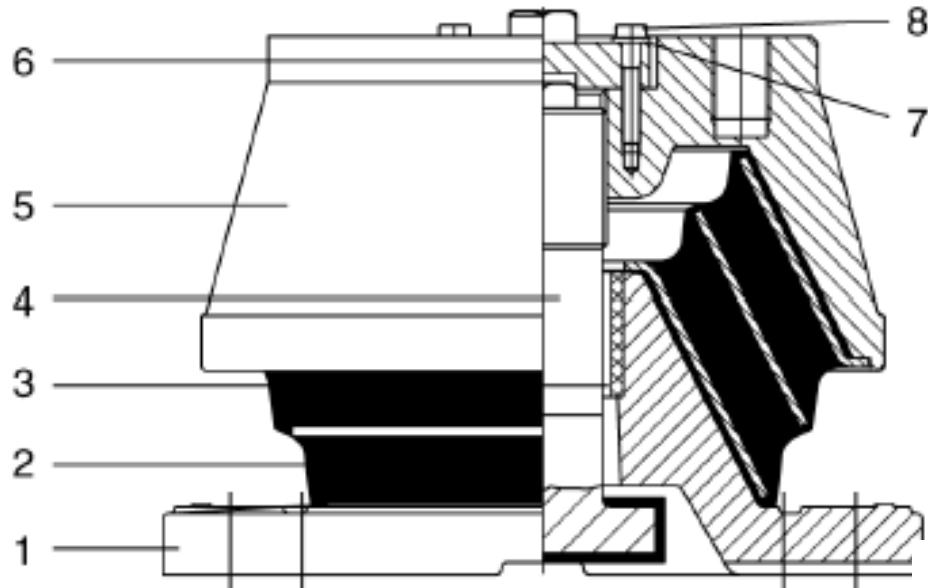
L23/30H-L28/32H Engine frame



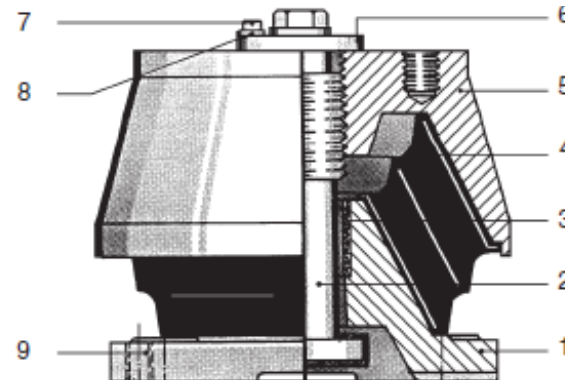
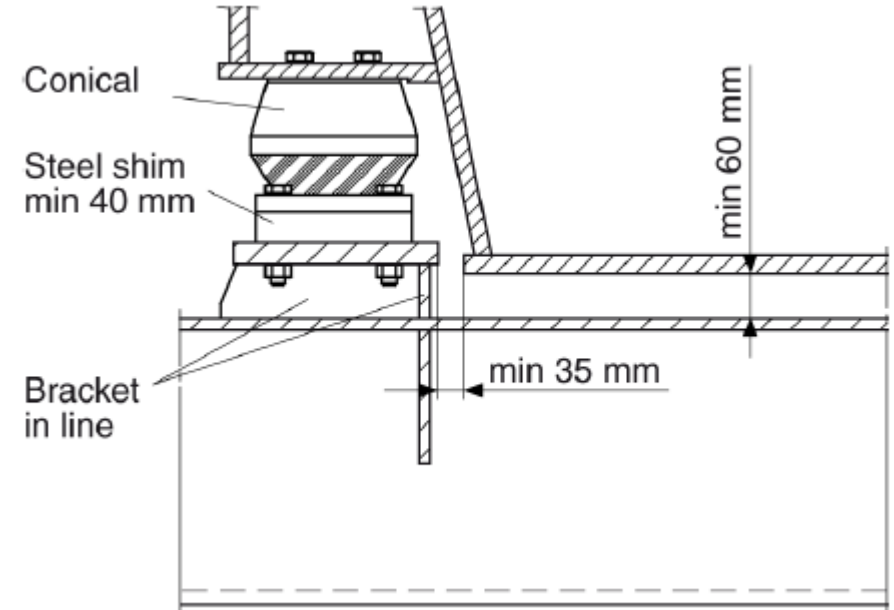
L23/30H-L28/32H Engine frame



L23/30H-L28/32H Conical



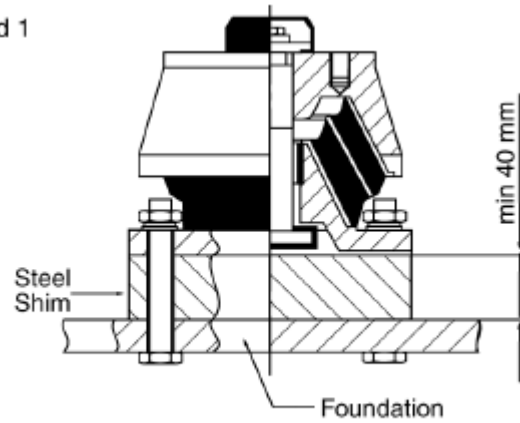
- | | | | |
|---|----------------|---|-----------------|
| 1 | Base casting | 2 | Rubber element |
| 3 | Synthetic bush | 4 | Internal buffer |
| 5 | Top casting | 6 | Top lock ring |
| 7 | Spring washer | 8 | Fixing bolt |



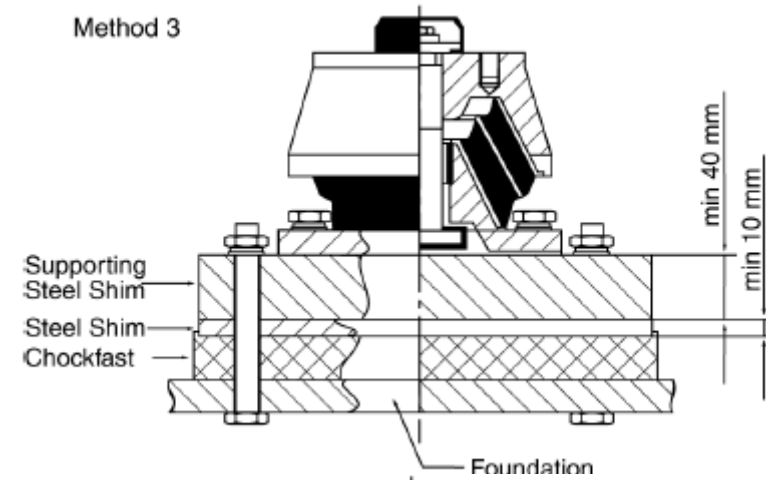
L23/30H-L28/32H Conical



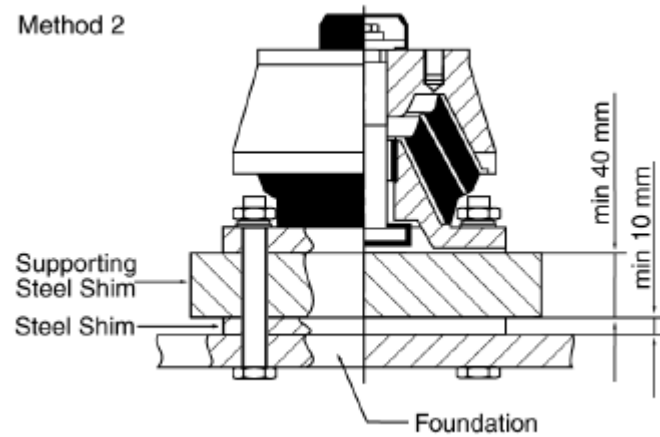
Method 1



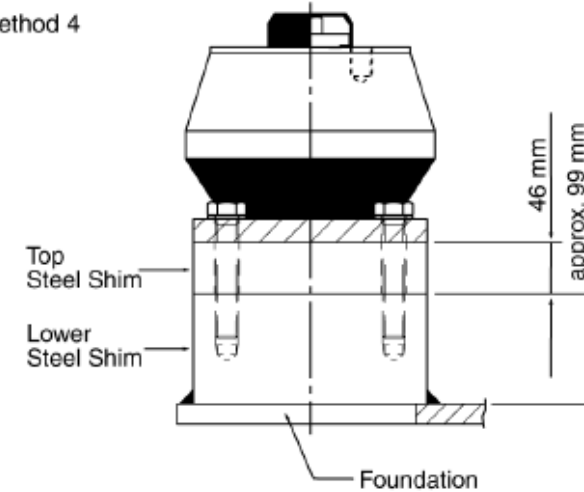
Method 3



Method 2



Method 4



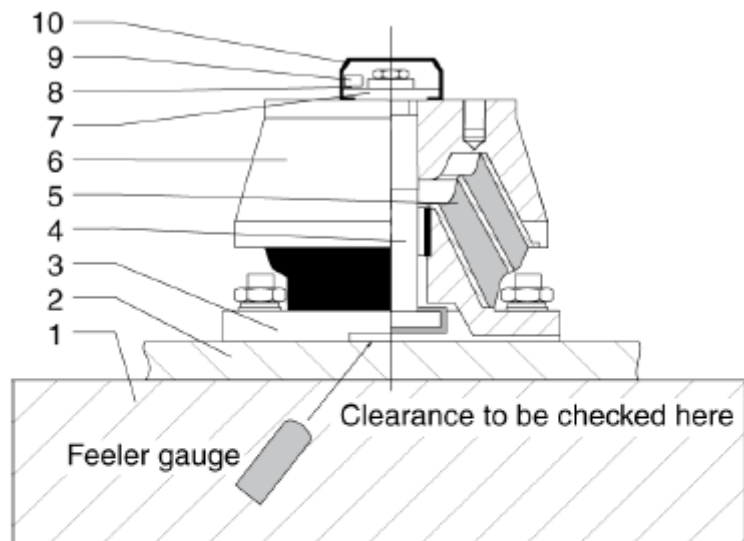
L23/30H-L28/32H Conical Maintenance



Visual check

- 1) Check for oil deposits on the rubber element.
- 2) Check for loose mounting bolts.
- 3) Check for damage in the rubber element.

Result of visual check



- | | |
|--------------------|-------------------|
| 1 Foundation | 2 Steel shim |
| 3 Base casting | 4 Internal buffer |
| 5 Rubber element | 6 Top casting |
| 7 Top locking ring | 8 Spring washer |
| 9 Fixing bolt | 10 Protective cap |

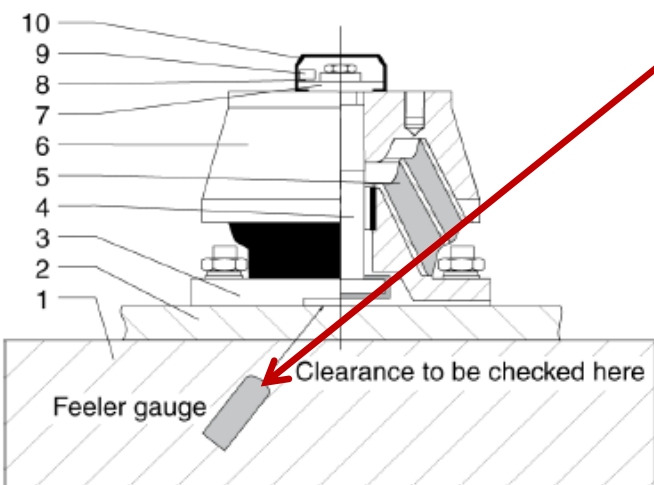
If	Then
everything is OK	continue to next conical
oil deposits on rubber element are observed	clean rubber element
loose mounting bolts	fasten mounting bolts
damage to conicals is observed	replace conical according to <i>Working card 619-03.05</i>

L23/30H-L28/32H Adjustment



Clearance check

Check clearance on all conical between steel shim and internal buffer through the slot in the base casting of the conical with a feeler gauge of approx. 2 mm.



- | | | | |
|---|------------------|----|-----------------|
| 1 | Foundation | 2 | Steel shim |
| 3 | Base casting | 4 | Internal buffer |
| 5 | Rubber element | 6 | Top casting |
| 7 | Top locking ring | 8 | Spring washer |
| 9 | Fixing bolt | 10 | Protective cap |

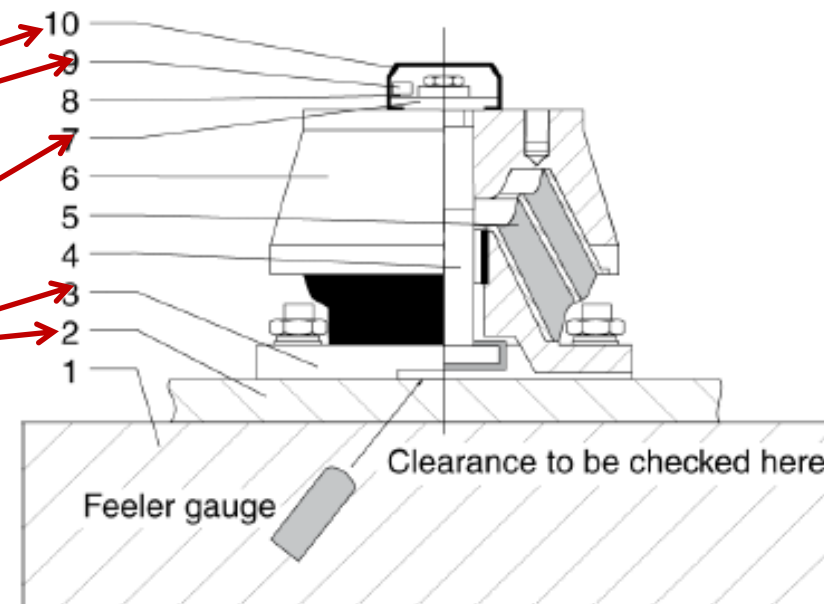
If	Then
everything is OK	check is completed
everything is not OK	adjust conicals which do not comply with the clearance demands acc. to item 2-3. Recheck all conicals acc. to item 2.1.
everything is still not OK	replace conicals acc. to <i>Working card 619-03.05</i>

L23/30H-L28/32H Adjustment of conical



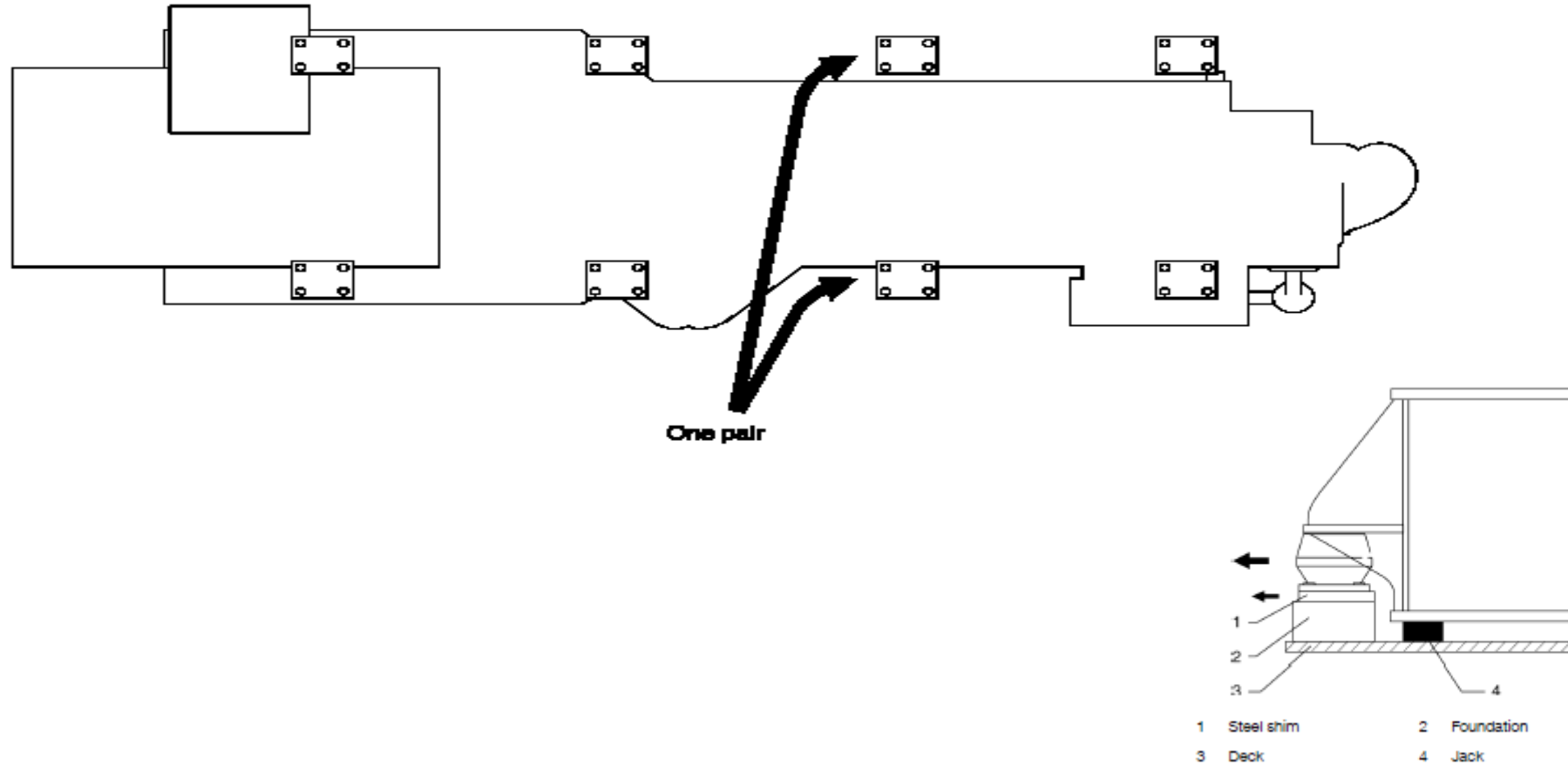
Adjustment of conical

- 1) Remove protective cap (No 10)
- 2) Remove fixing bolt (No 9) and top locking ring (No 7).
- 3) Turn buffer clockwise until it makes contact with the steel shim (No 2).
- 4) Turn buffer anti-clockwise until it makes contact with the conical base casting (No 3). This must be four full rotations.
- 5) Turn buffer two full rotations clockwise. This will ensure full vertical movement for the buffer.
- 6) Check all conical again.
- 7) Replace top locking ring, fixing bolt and protective cap etc.



- | | | | |
|---|------------------|----|-----------------|
| 1 | Foundation | 2 | Steel shim |
| 3 | Base casting | 4 | Internal buffer |
| 5 | Rubber element | 6 | Top casting |
| 7 | Top locking ring | 8 | Spring washer |
| 9 | Fixing bolt | 10 | Protective cap |

L28/32H Engine frame



L23/30H-L28/32H Engine frame - Resilient Mounting

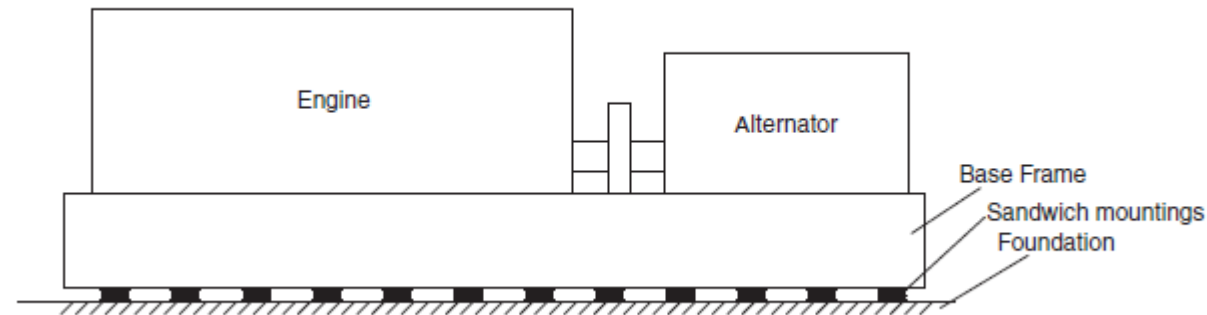


Resilient Support

A resilient mounting of the generating set is made with a number of sandwich mountings. The number and the distance between them depend on the size and weight of the plant. The mountings are bolted onto the base frame.

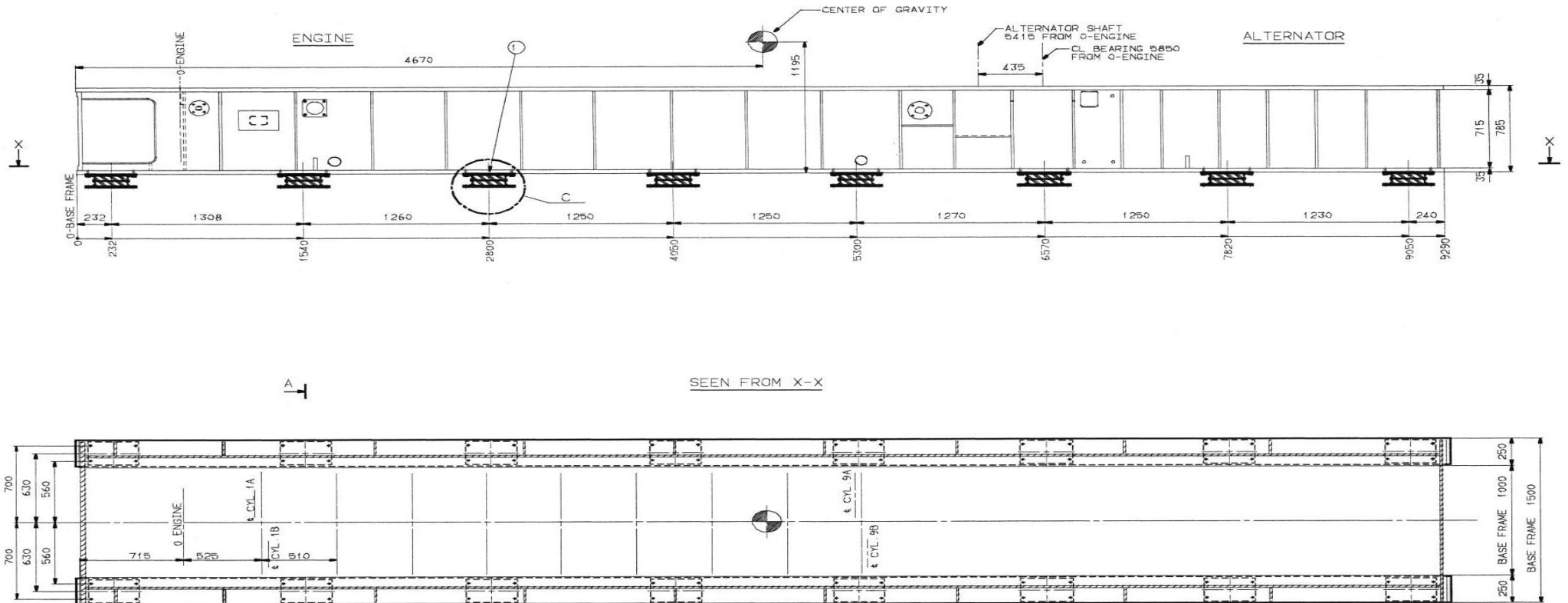
The standard height of the sandwich mountings is 125 mm in unloaded condition - when loaded the setting is normally 6-8 mm.

The exact setting can be found in the calculation of the sandwich mountings for the plant in question.

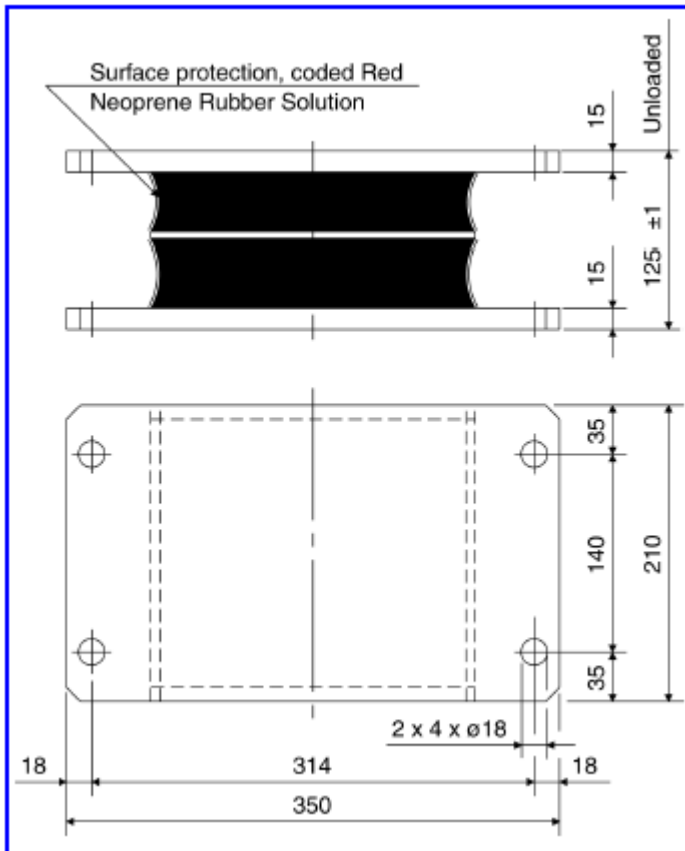


Generally the mountings will not require maintenance or reconditioning in service unless misused or accidentally damaged.

L23/30H-L28/32H Engine frame



L23/30H-L28/32H Engine frame



Tolerance of foundation frame

Description	Tolerances
Flatness per mounting	± 0.5 mm
Parallelism per mounting length	± 1.0 mm
Parallelism total length	± 2.0 mm

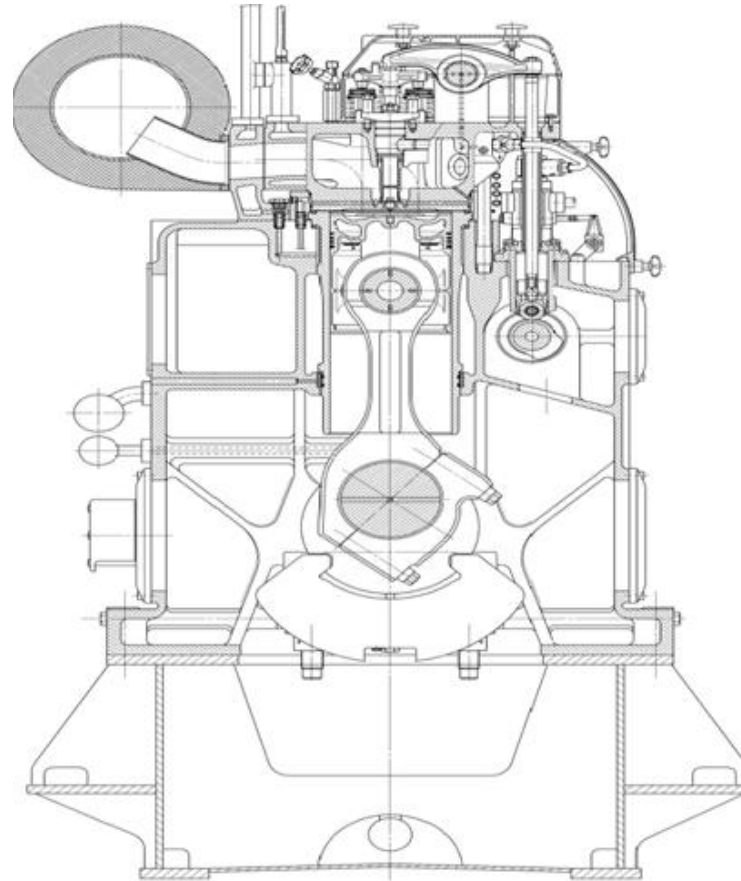
$$\text{Average} = \frac{H_1 + H_2 + H_3 \dots H_n}{N} \text{ mm.}$$

$$N = \text{Max. } +/- 2\text{mm}$$

L23/30H-L28/32H Engine frame



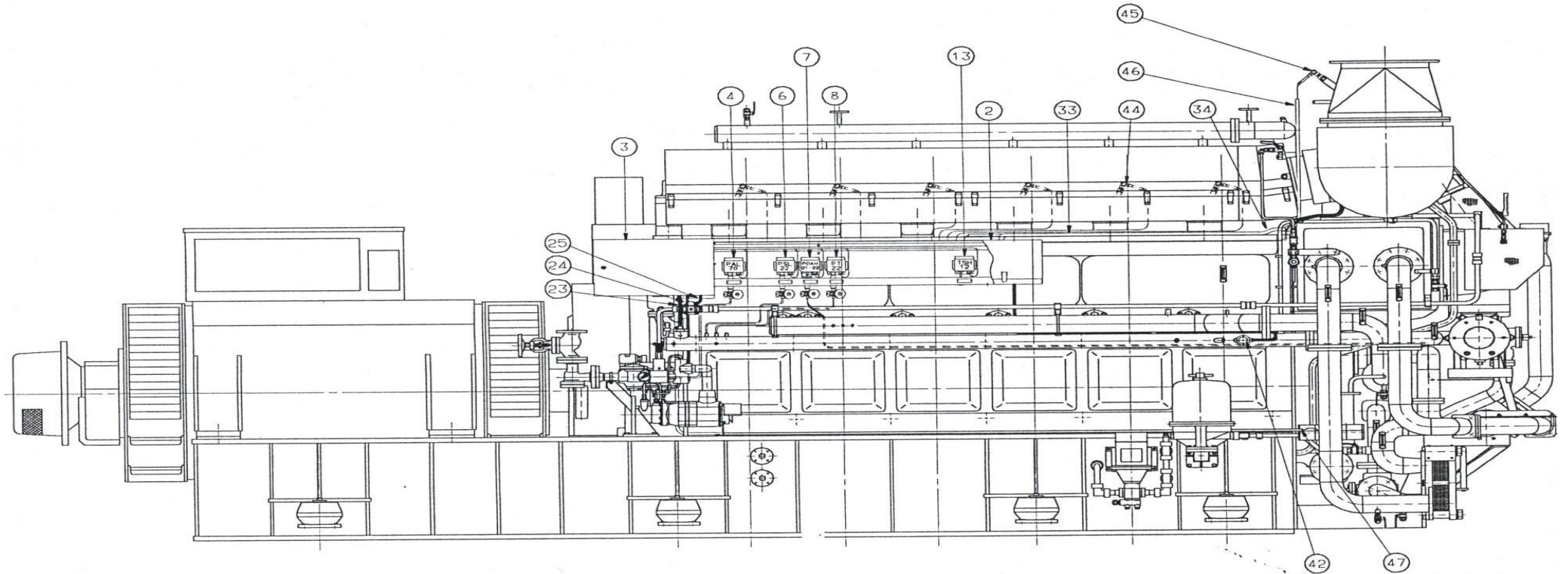
Cross Section, detailed



L23/30H-L28/32H Engine frame



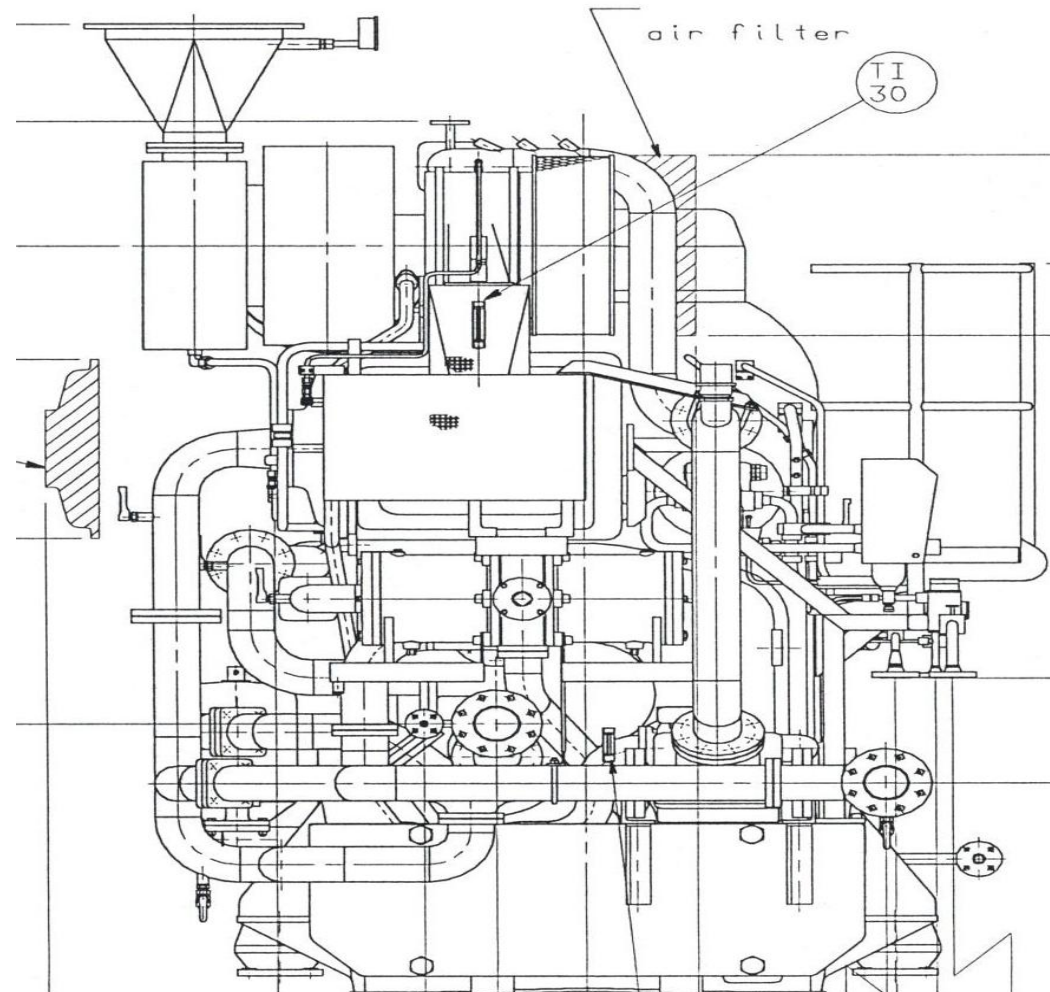
A-side



L23/30H-L28/32H Engine frame



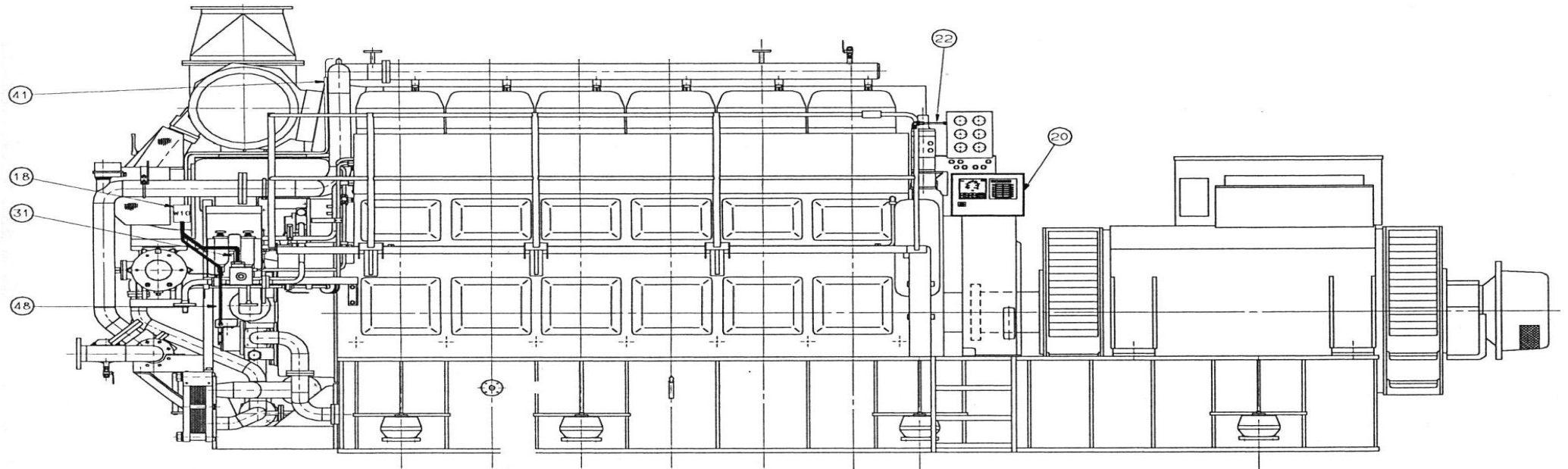
Front



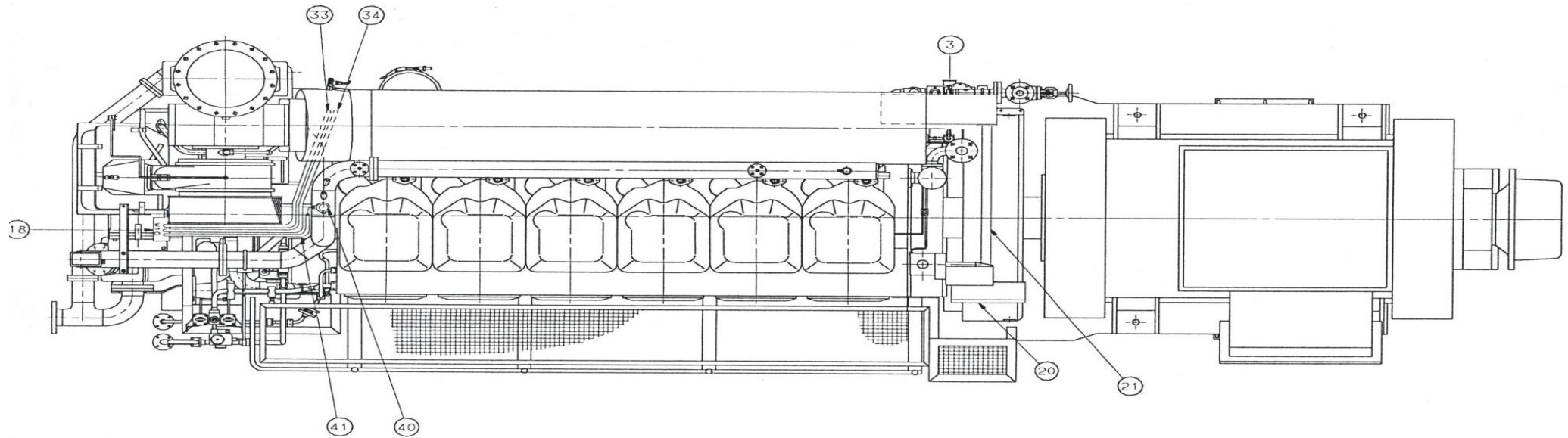
L23/30H-L28/32H Engine frame



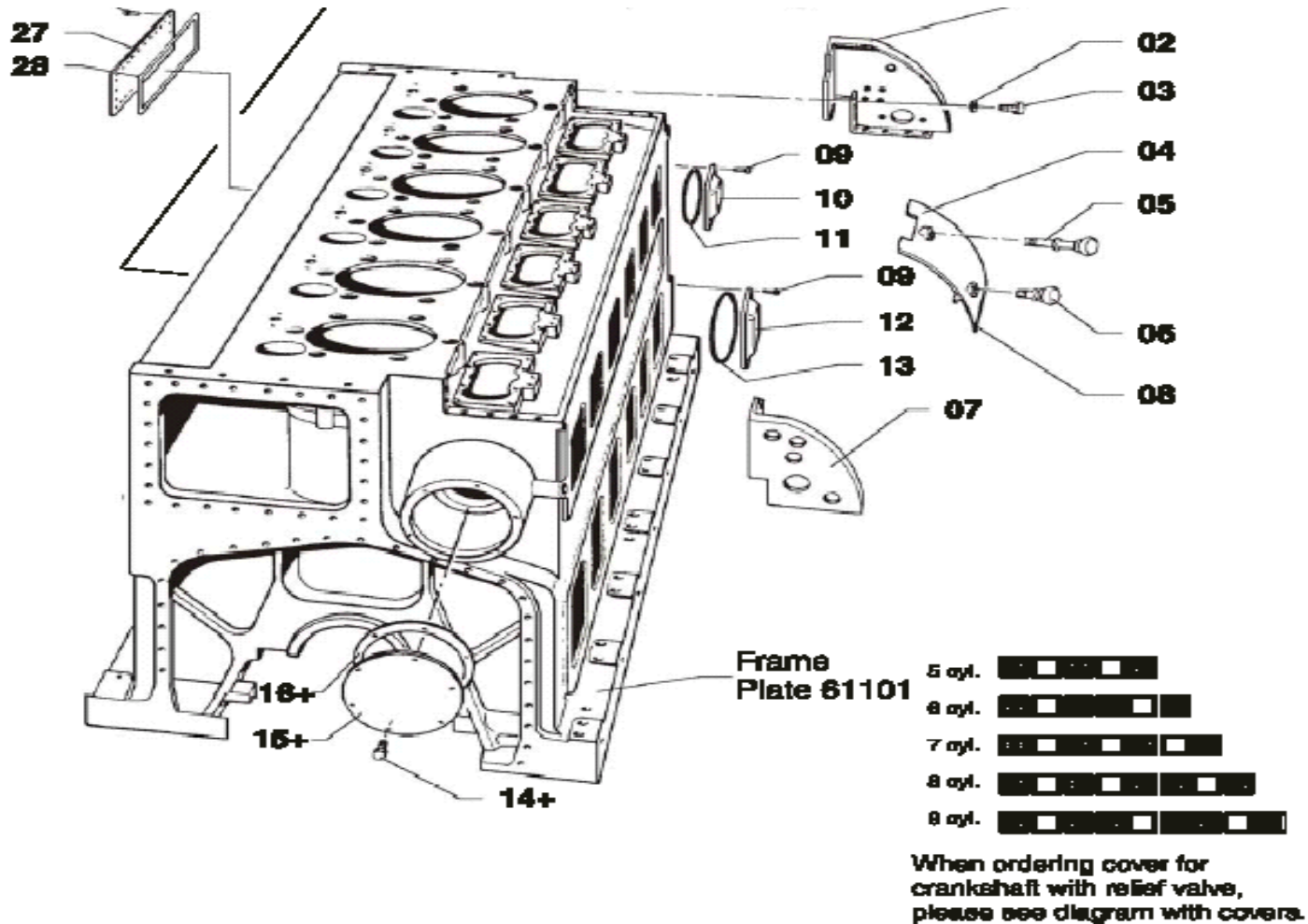
B-side



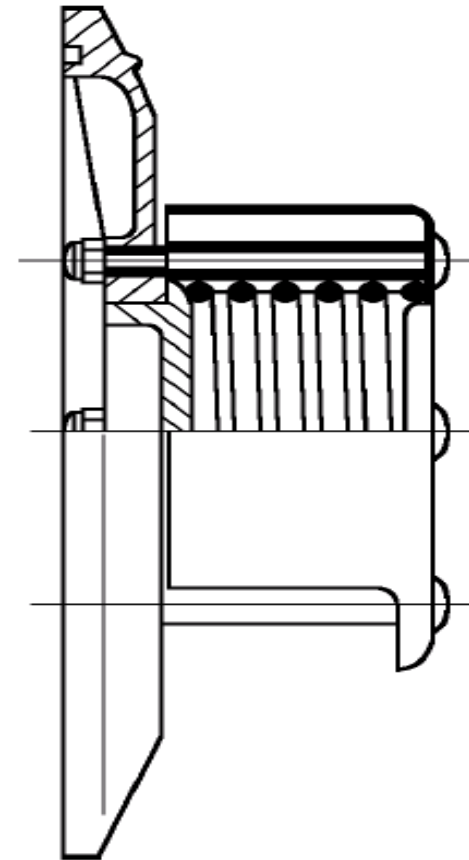
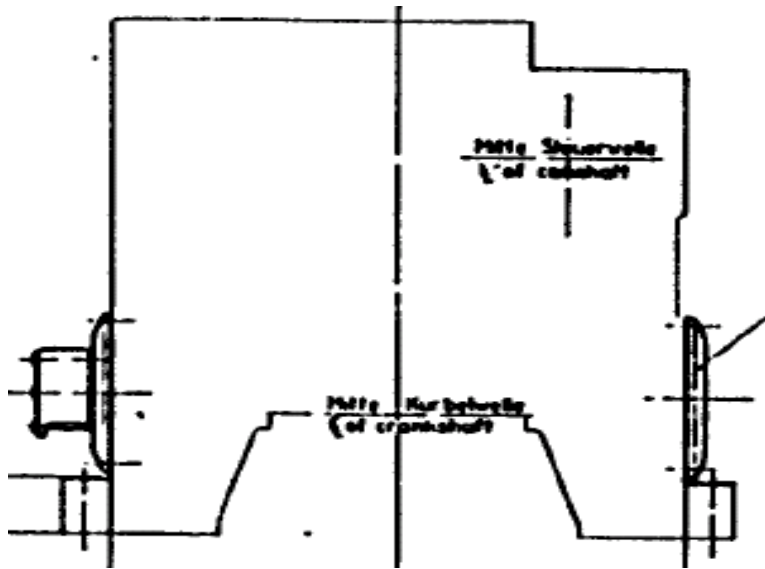
L23/30H-L28/32H Engine frame



L23/30H-L28/32H Engine frame

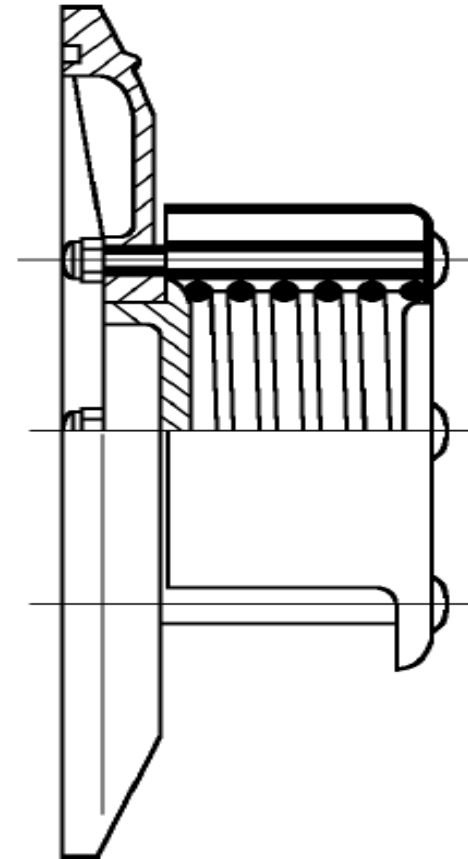
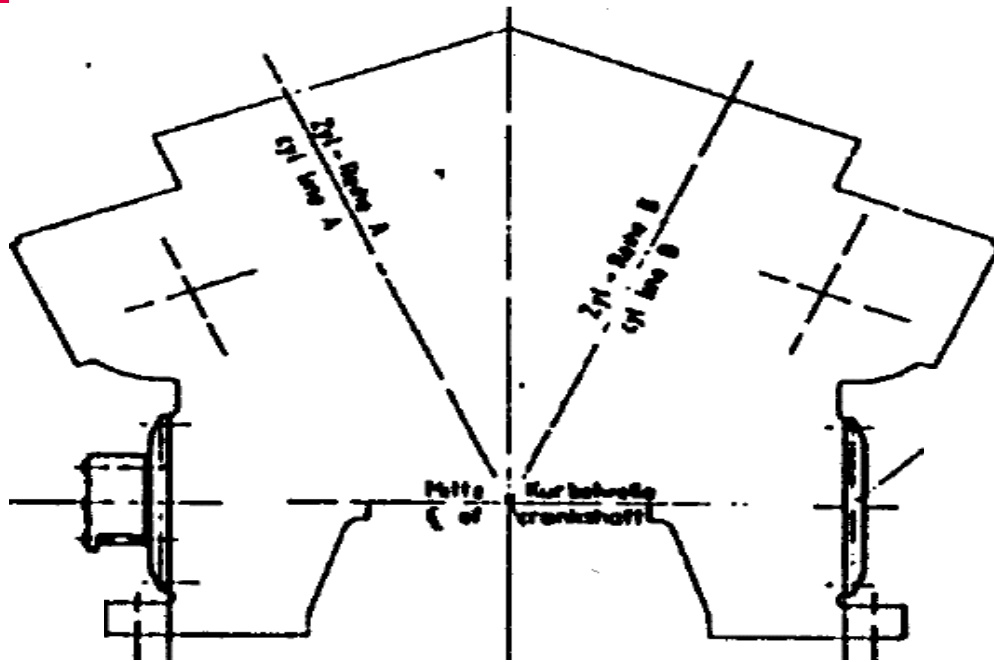


L23/30H-L28/32H Engine frame



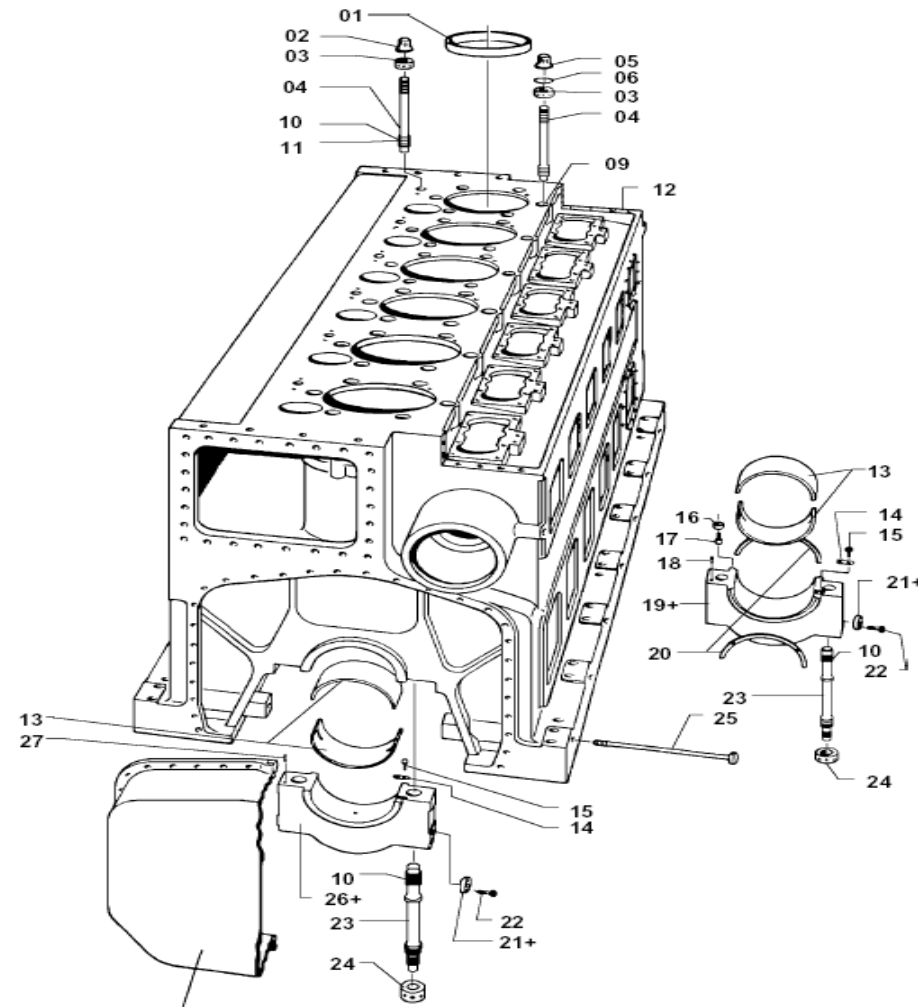
Relief Valve

L23/30H-L28/32H Engine frame

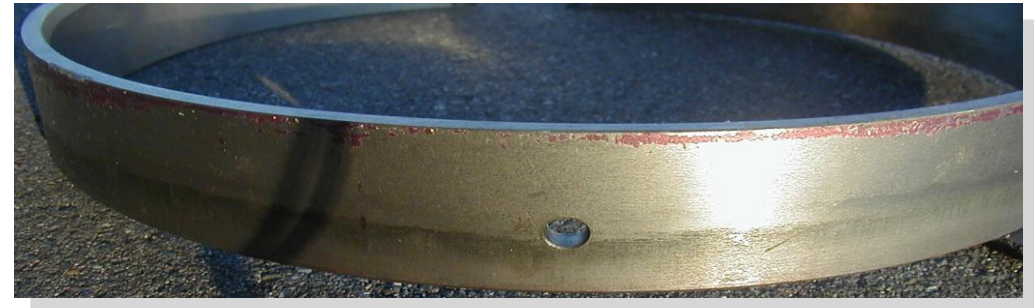
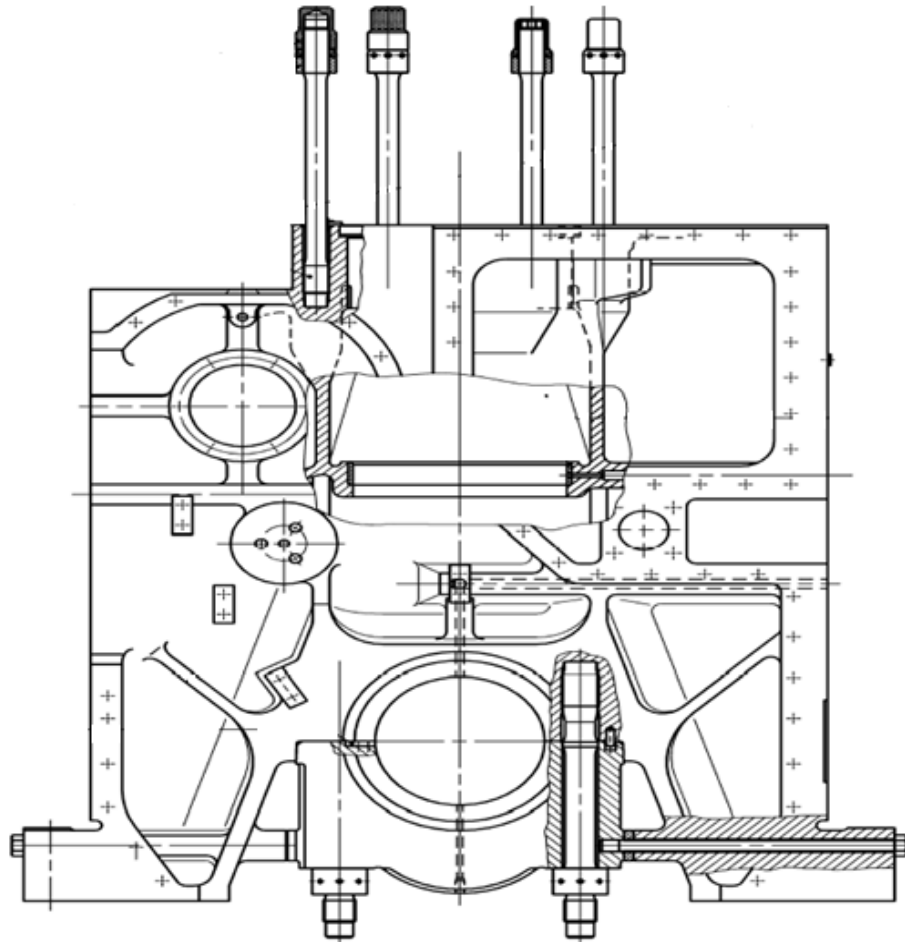


Relief Valve

L23/30H-L28/32H Engine frame



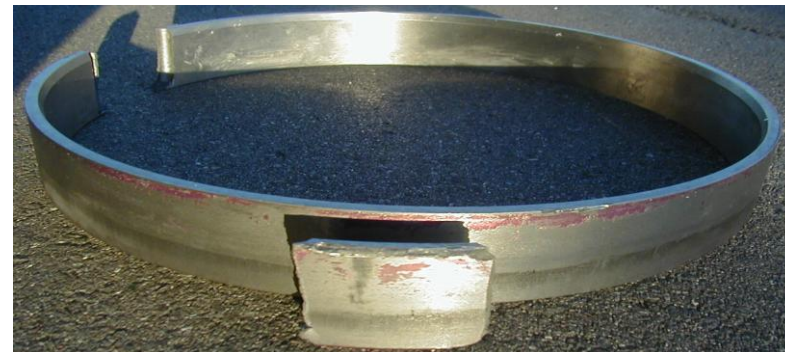
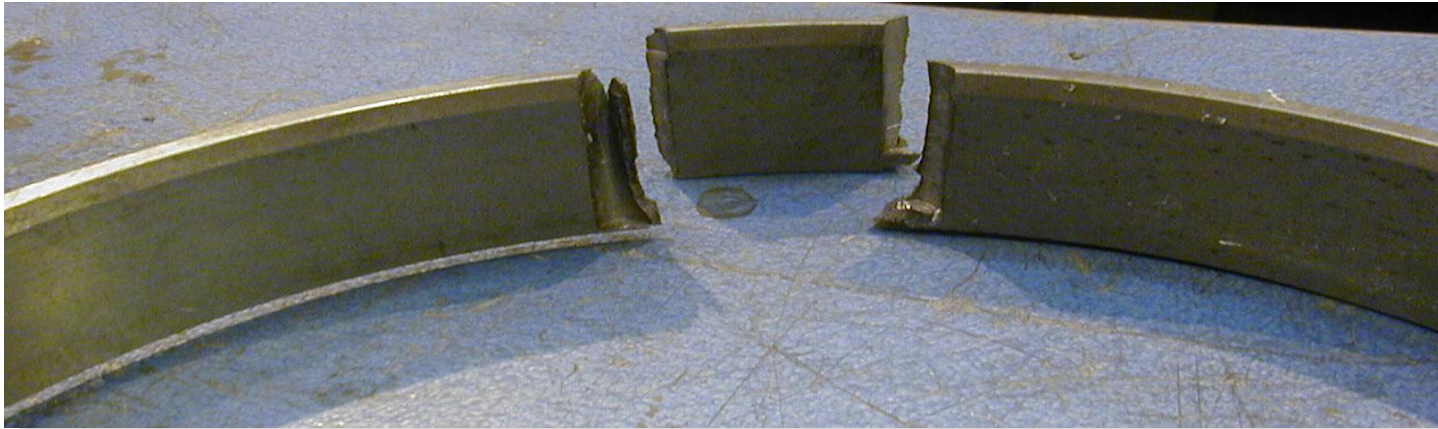
L23/30H-L28/32H Engine frame, wear ring



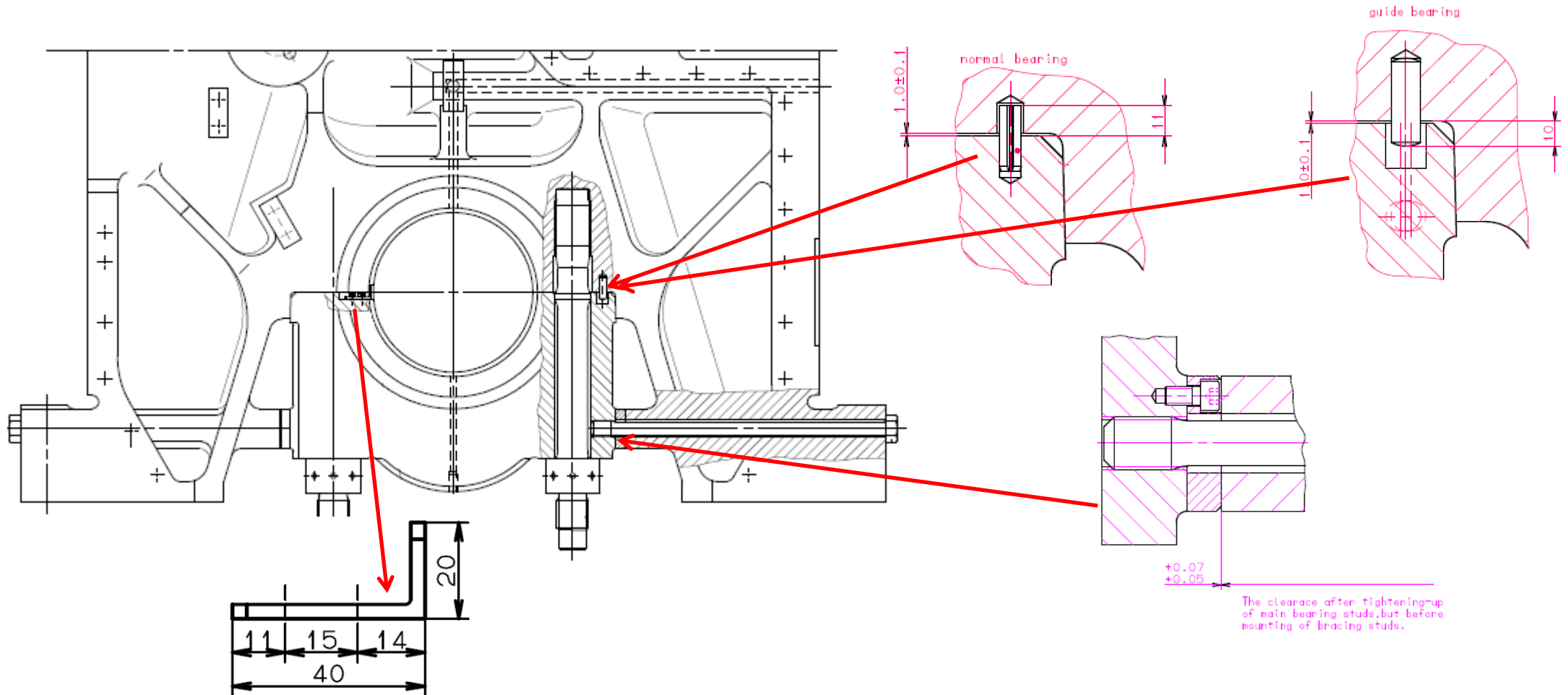
L23/30H-L28/32H Engine frame



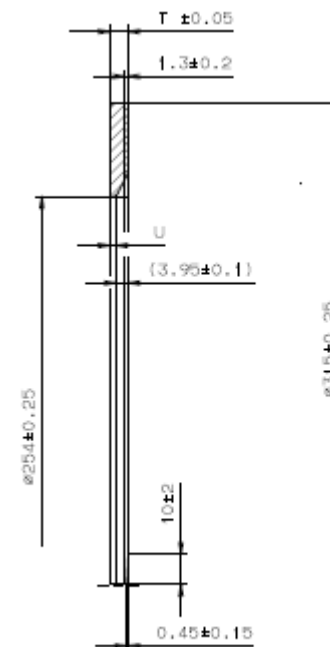
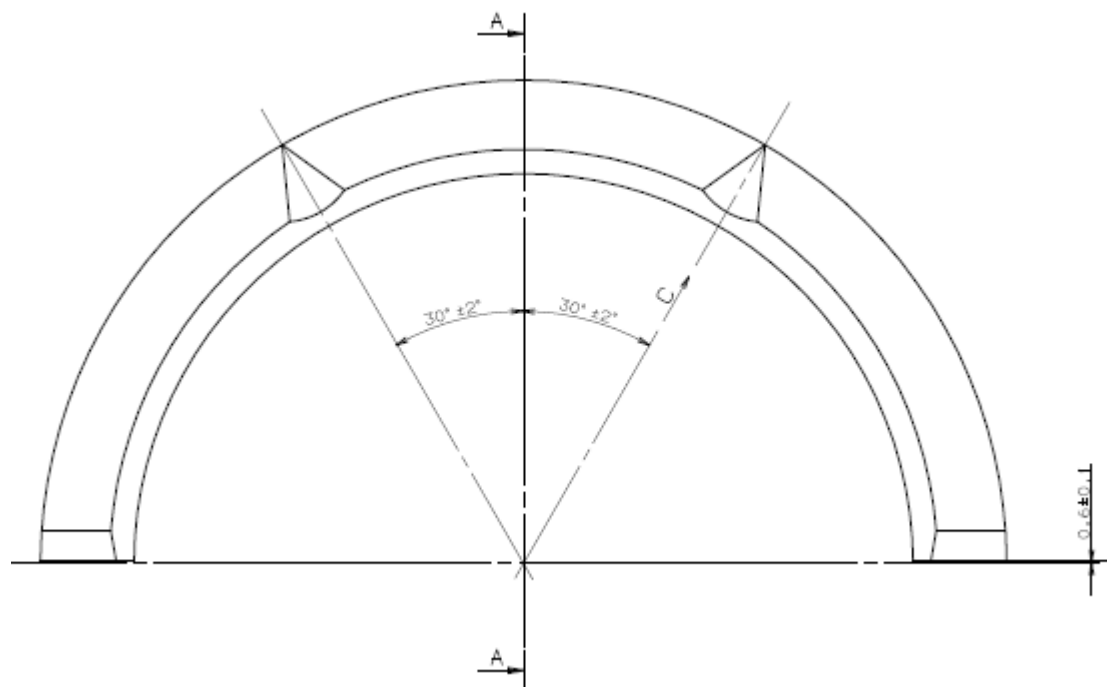
Removal of Wear Ring



L23/30H-L28/32H Engine frame – Main bearing

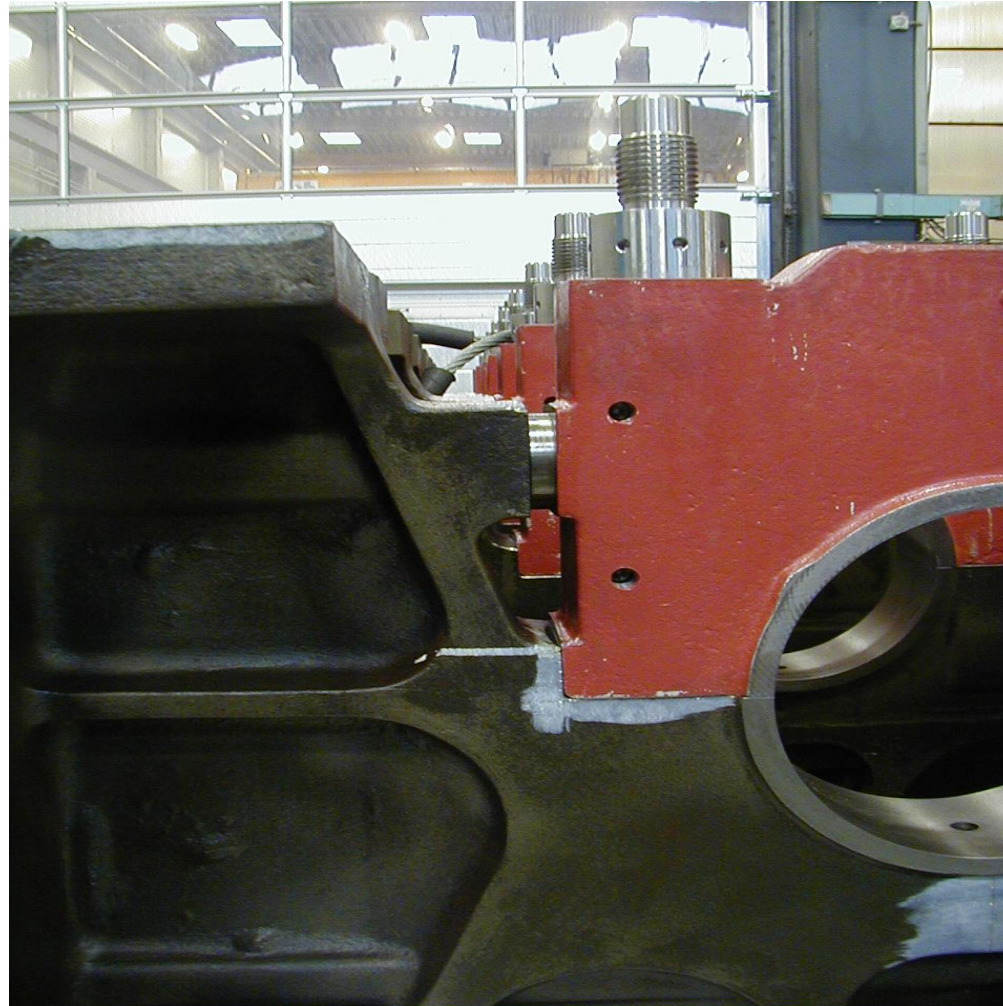


L23/30H-L28/32H Engine frame – trust bearing



DESCRIPTION	ALPHA DIESEL PART NO.	MIBA DRAWING NO.	T (mm)	U (mm)	* WEIGHT (kg)
STANDARD	11.02199-0029	- - - - -	5.95	2.0	0.525
0.5mm OVERSIZE	2505204-9	- - - - -	6.45	2.5	0.578
1.0mm OVERSIZE	2505205-0	- - - - -	6.95	3.0	0.631
1.5mm OVERSIZE	2505206-2	- - - - -	7.45	3.5	0.684

L23/30H-L28/32H Engine frame

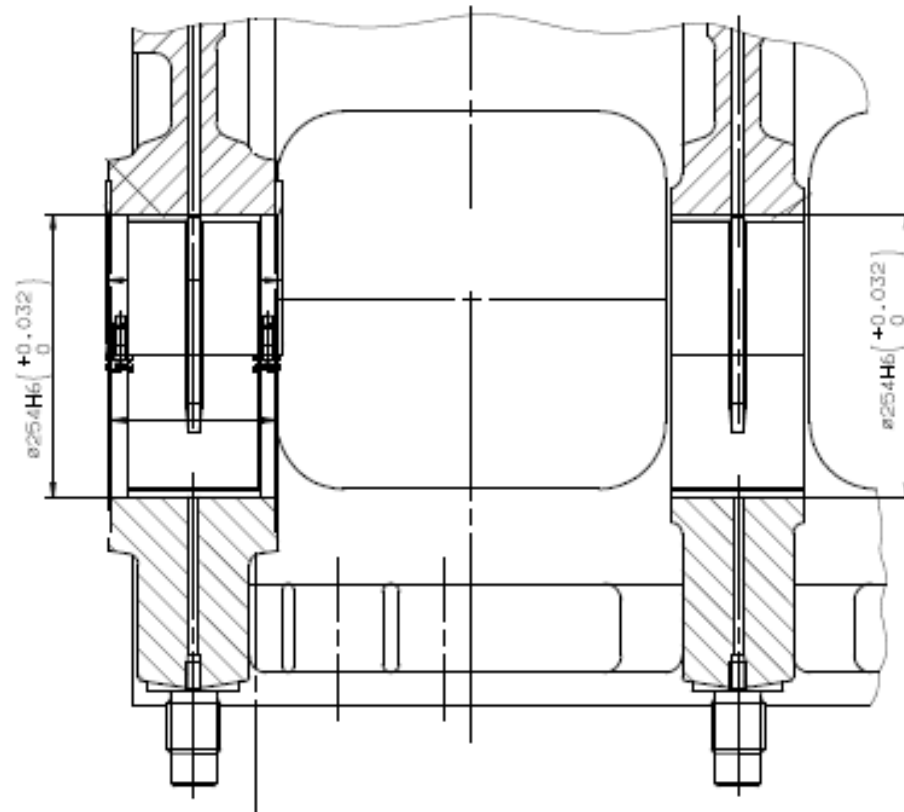


L23/30H-L28/32H Engine frame



Locating bearing

Normal bearing



L23/30H-L28/32H Engine frame

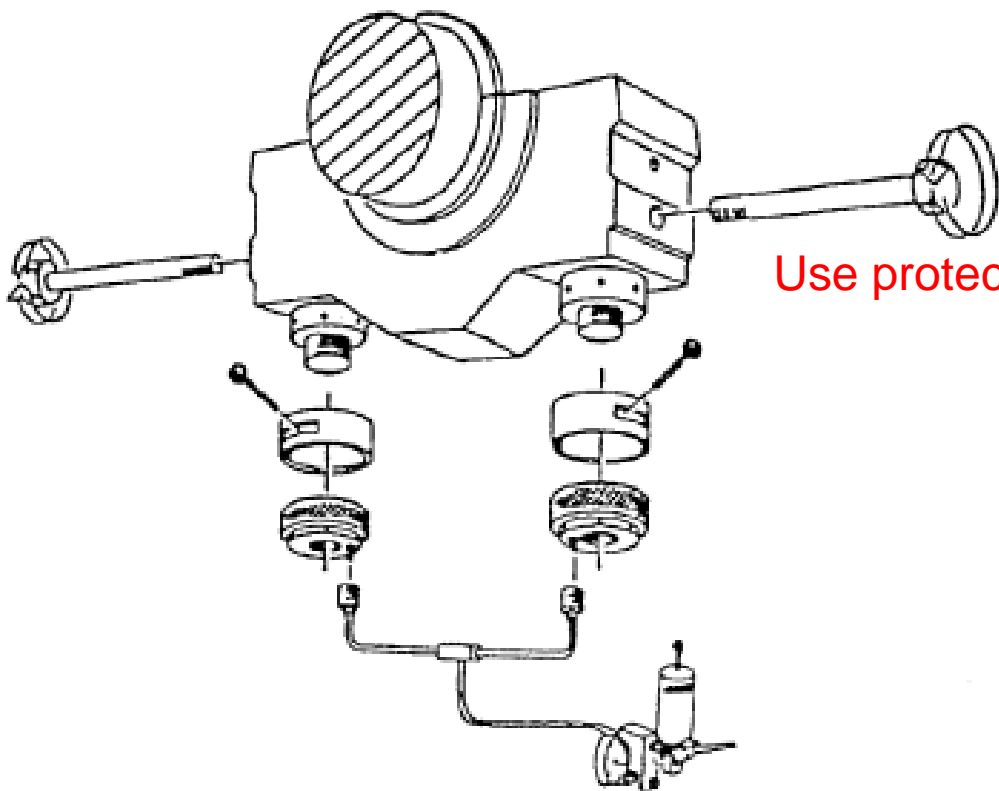


Use protective gloves

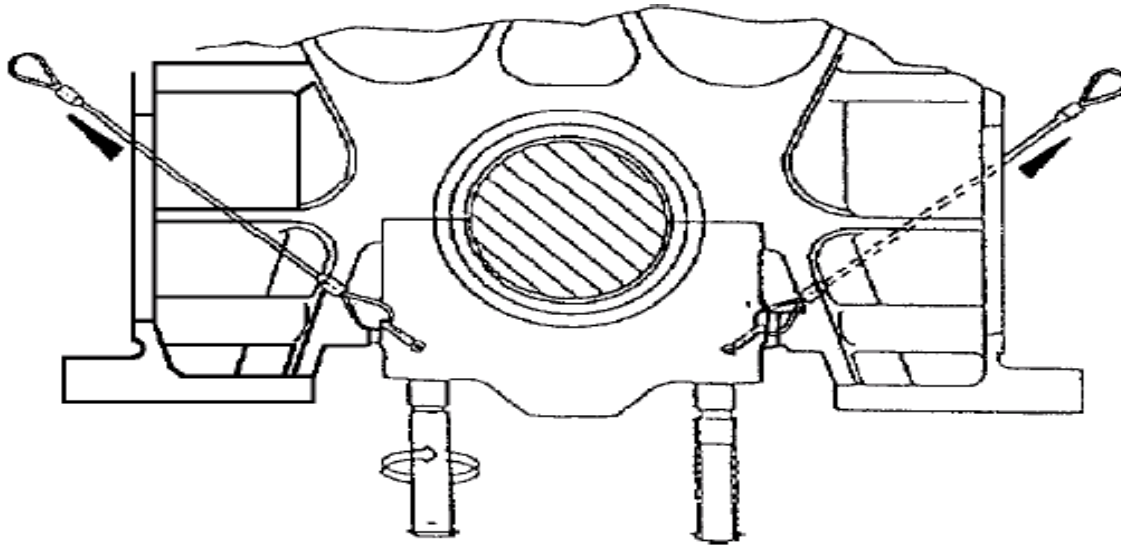
- 1) Dismount crankcase covers in front and opposite the bearing concerned.
- 2) Turn the engine until the crank is in a convenient position for carrying out the work.

Use protective gloves, safety glasses

- 3) Dismount the bracing screw (side screw).
- 4) Mount the hydraulic tools and loosen the main bearing stud nuts. For operation of the hydraulic tools
- 5) Dismount the hydraulic tools and slacken the nuts somewhat.

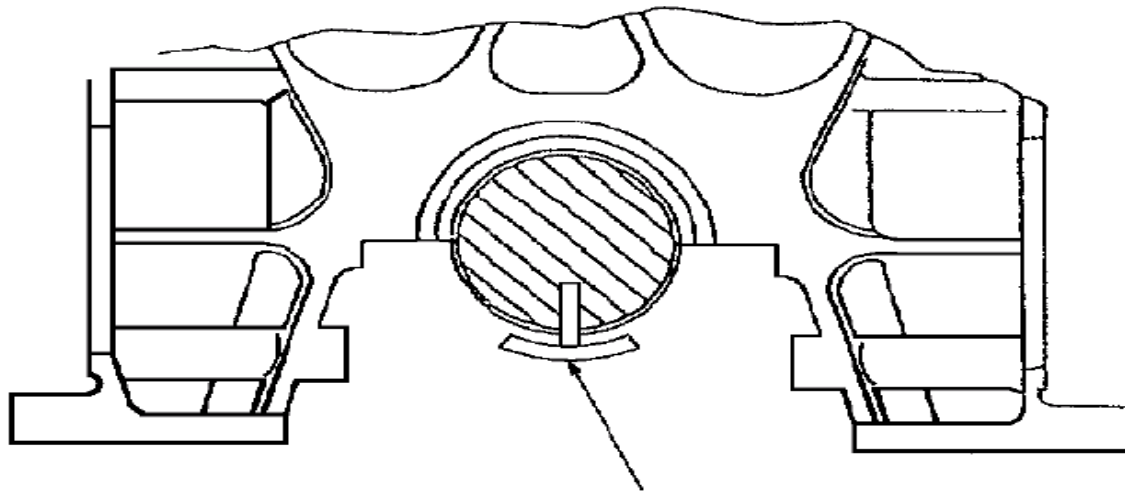


L23/30H-L28/32H Engine frame - Dismantling of the main bearing cap



- 1) Fit the eye screws, diagonally, in the threaded **holes** in the main bearing cap
- 2) Work the main bearing cap loose from the engine frame with a lead hammer or similar.
- 3) Lift the main bearing cap a little and unscrew the bearing stud nut.
- 4) Fit guide tubes on the threads of the bearing studs and lower the bearing cap to make it rest on the collar of the guide tubes.

L23/30H-L28/32H Engine frame

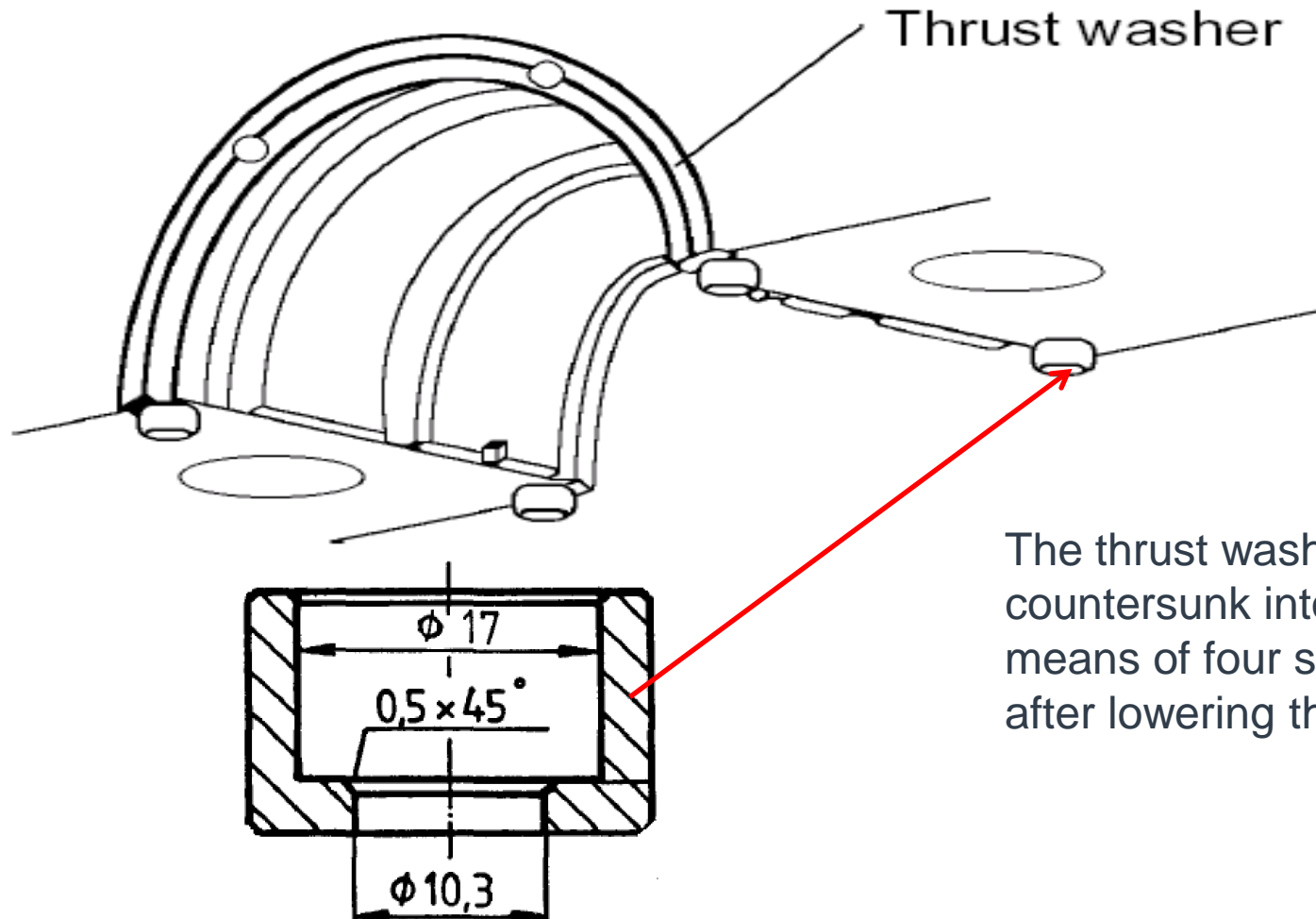


Tool for upper main bearing

1) Remove the locking piece from the bearing cap and take out the bearing shell.

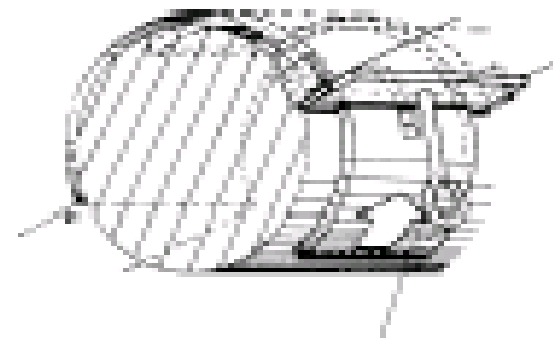
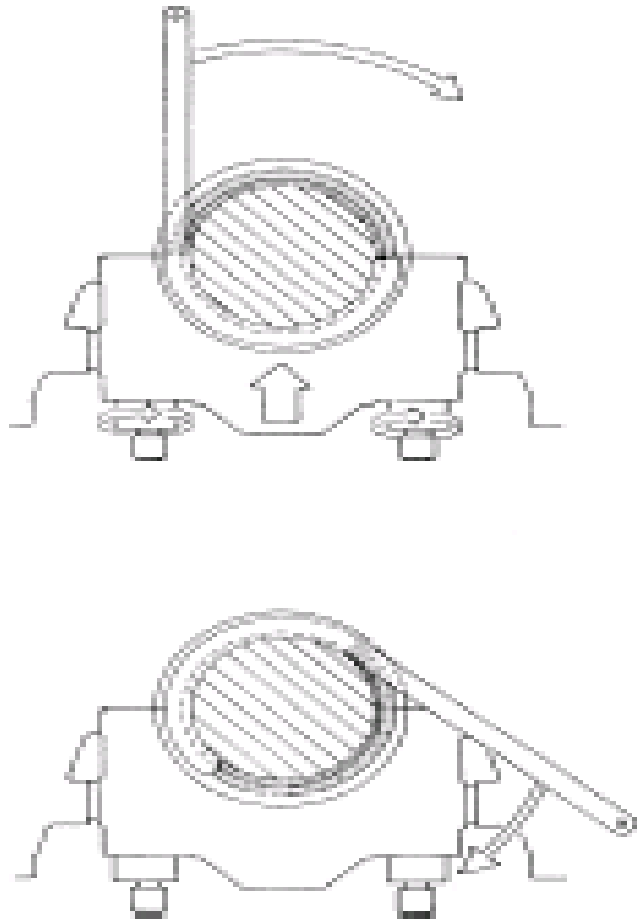
2) Fit the tool for upper main bearing, for dismantling of upper main bearing shell, in the lubricating hole in the crankshaft and turn out the upper bearing shell by turning the crankshaft.

L23/30H-L28/32H Engine frame

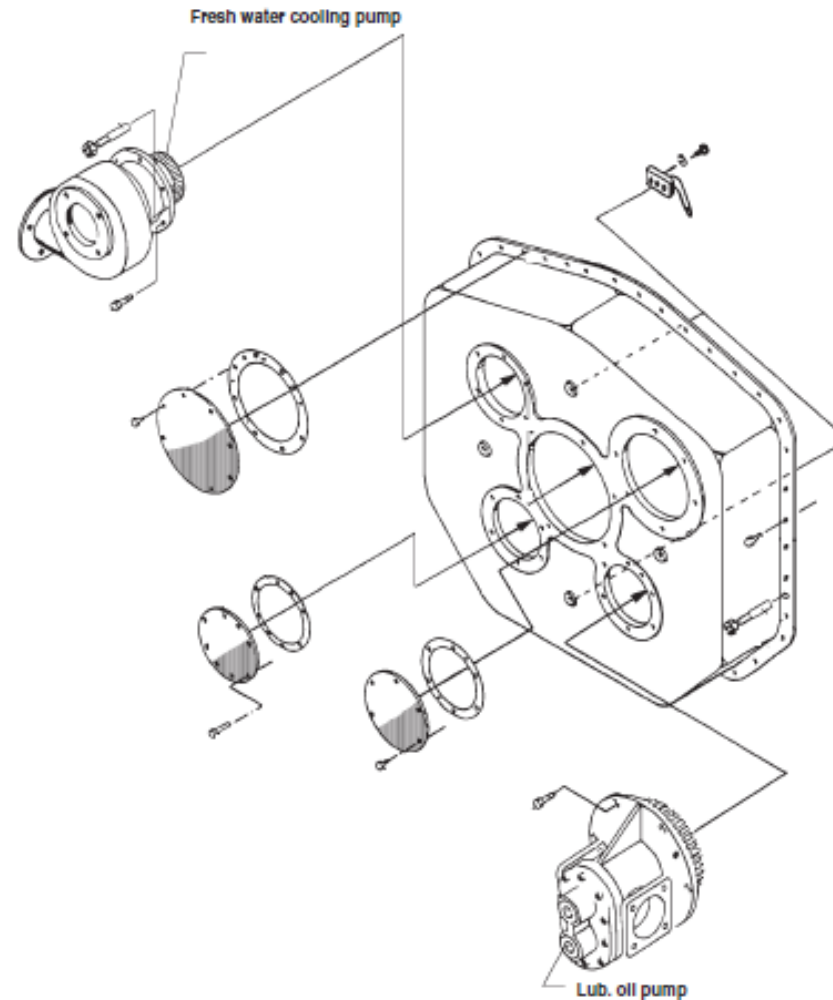


The thrust washer of the guide bearing is partially countersunk into the engine frame and attached by means of four screwed-on clamps which are visible after lowering the bearing cap.

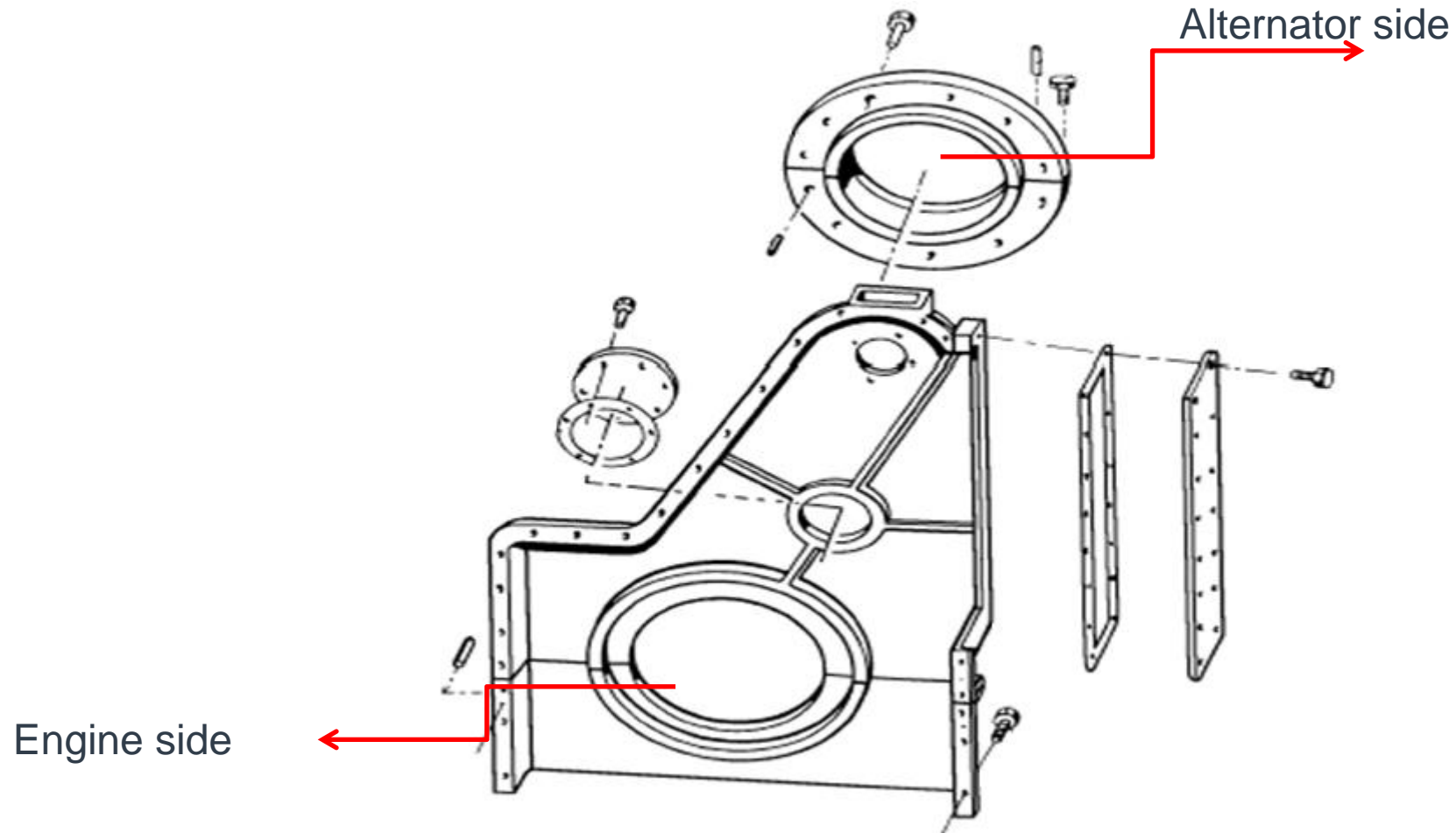
L23/30H-L28/32H Engine frame



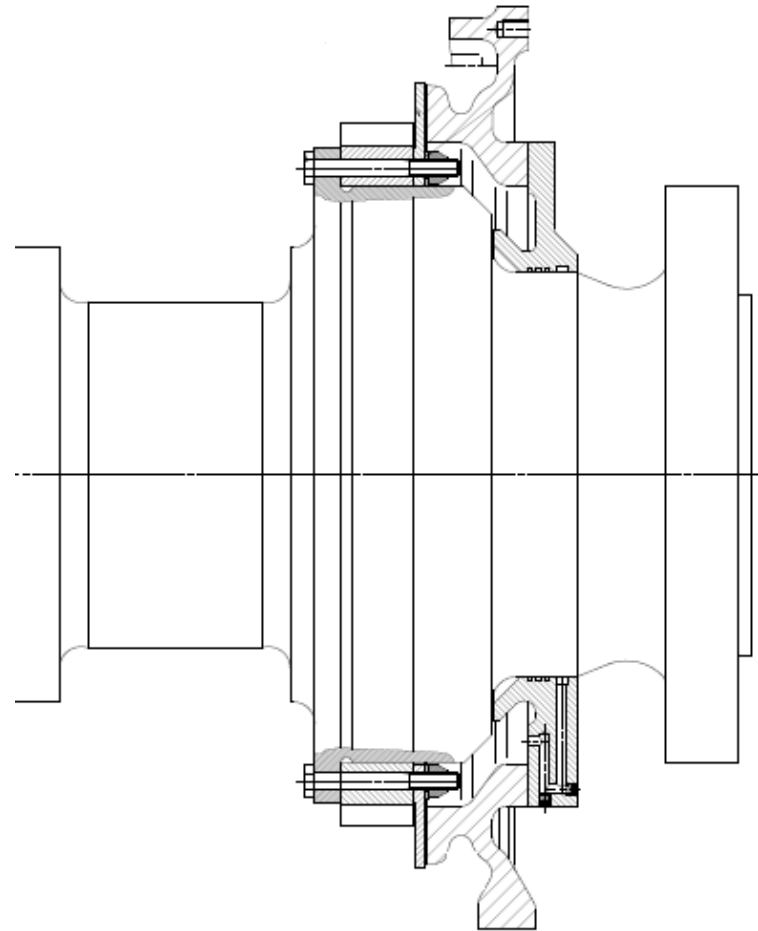
L23/30H-L28/32H Engine frame – end cover for pumps



L23/30H-L28/32H Engine frame



L23/30H-L28/32H Engine frame



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Do you have any more questions?

