

# MECHANIC DIESEL TRANSPARENCIES



**CIM** CENTRAL INSTRUCTIONAL  
MEDIA INSTITUTE, MADRAS  
AN INDO - GERMAN PROJECT



**Directorate General of Employment & Training, Ministry of Labour, Govt. of India.**

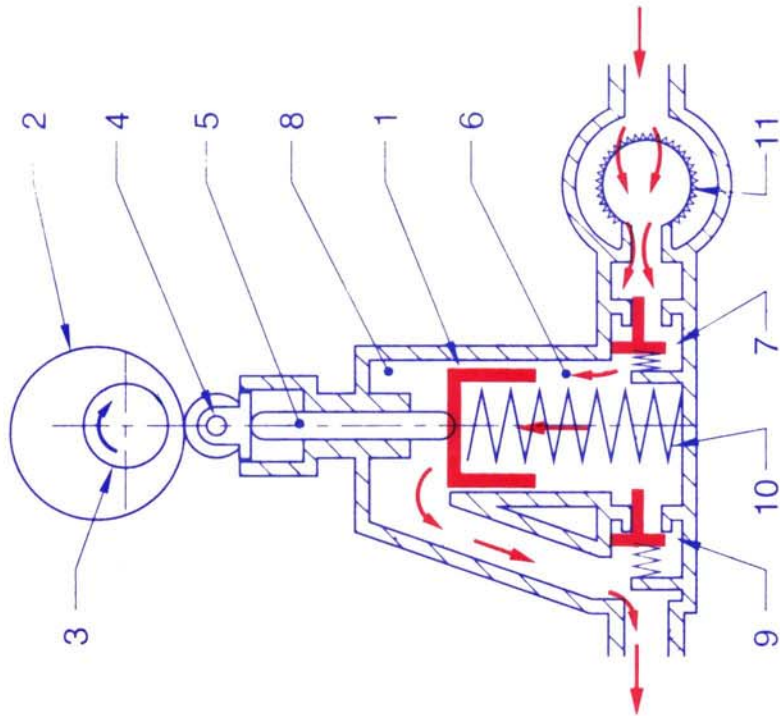
Developed by  
CENTRAL INSTRUCTIONAL MEDIA INSTITUTE  
in collaboration with DEUTSCHE GESELLSCHAFT FUER TECHNISCHE ZUSAMMENARBEIT (GTZ) Germany.  
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# DIESEL FUEL FEED PUMP

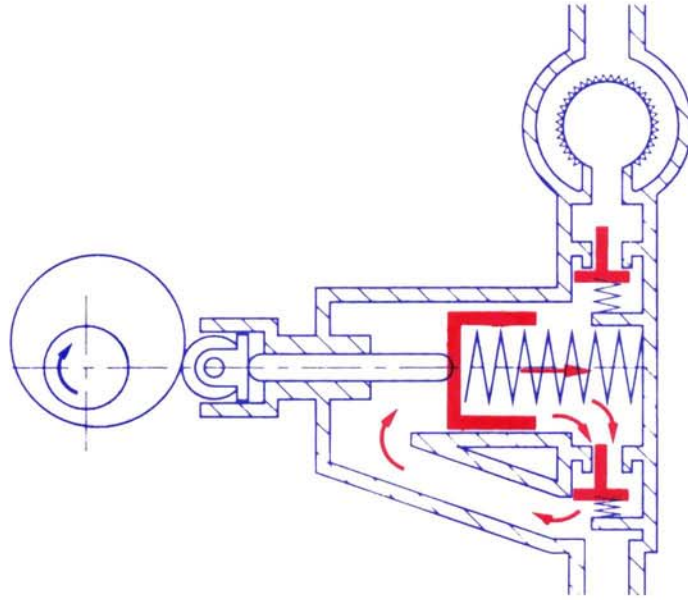
A

DELIVERY AND SUCTION STROKE



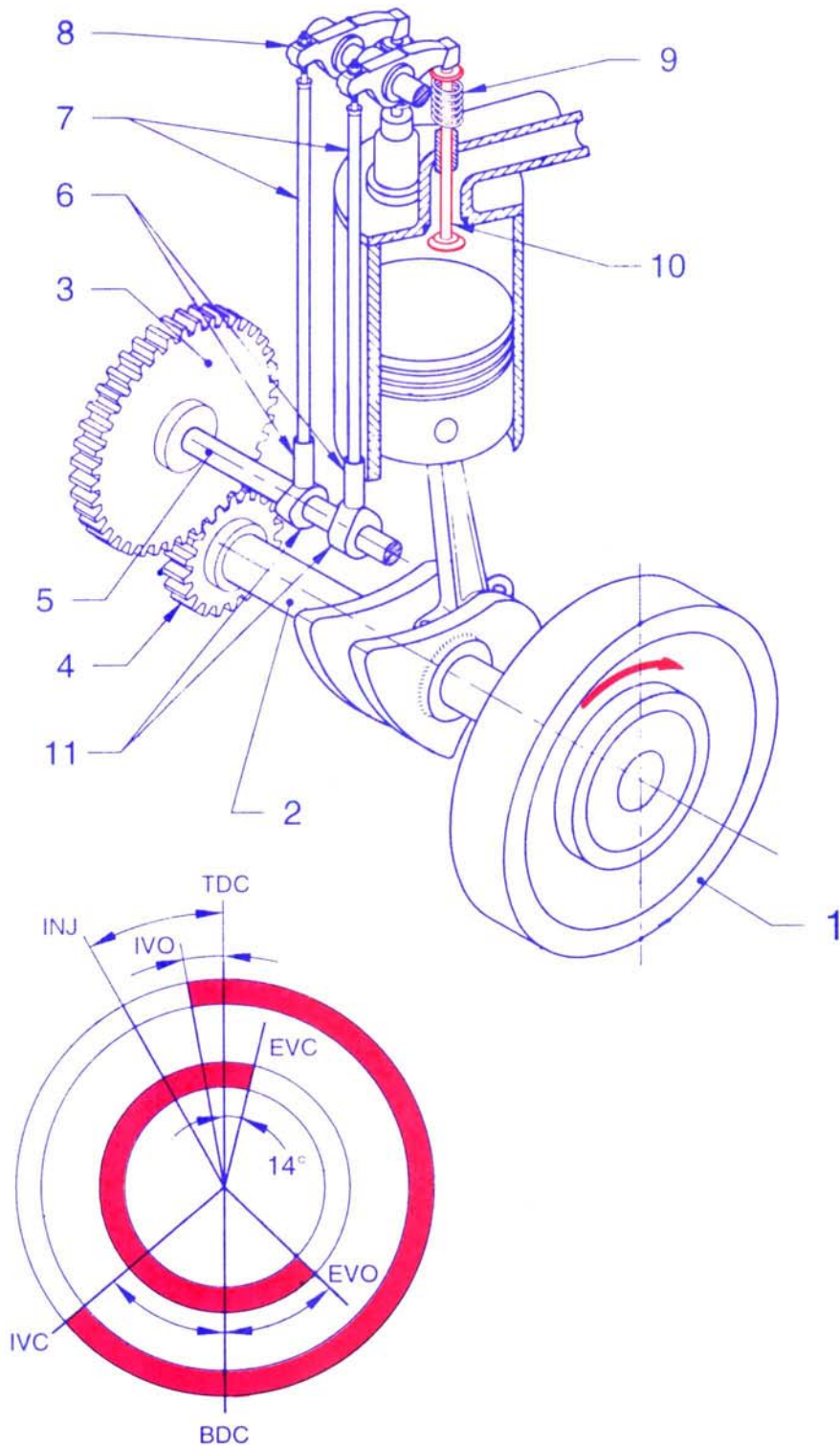
B

INTERMEDIATE STROKE / IDLING ACTION



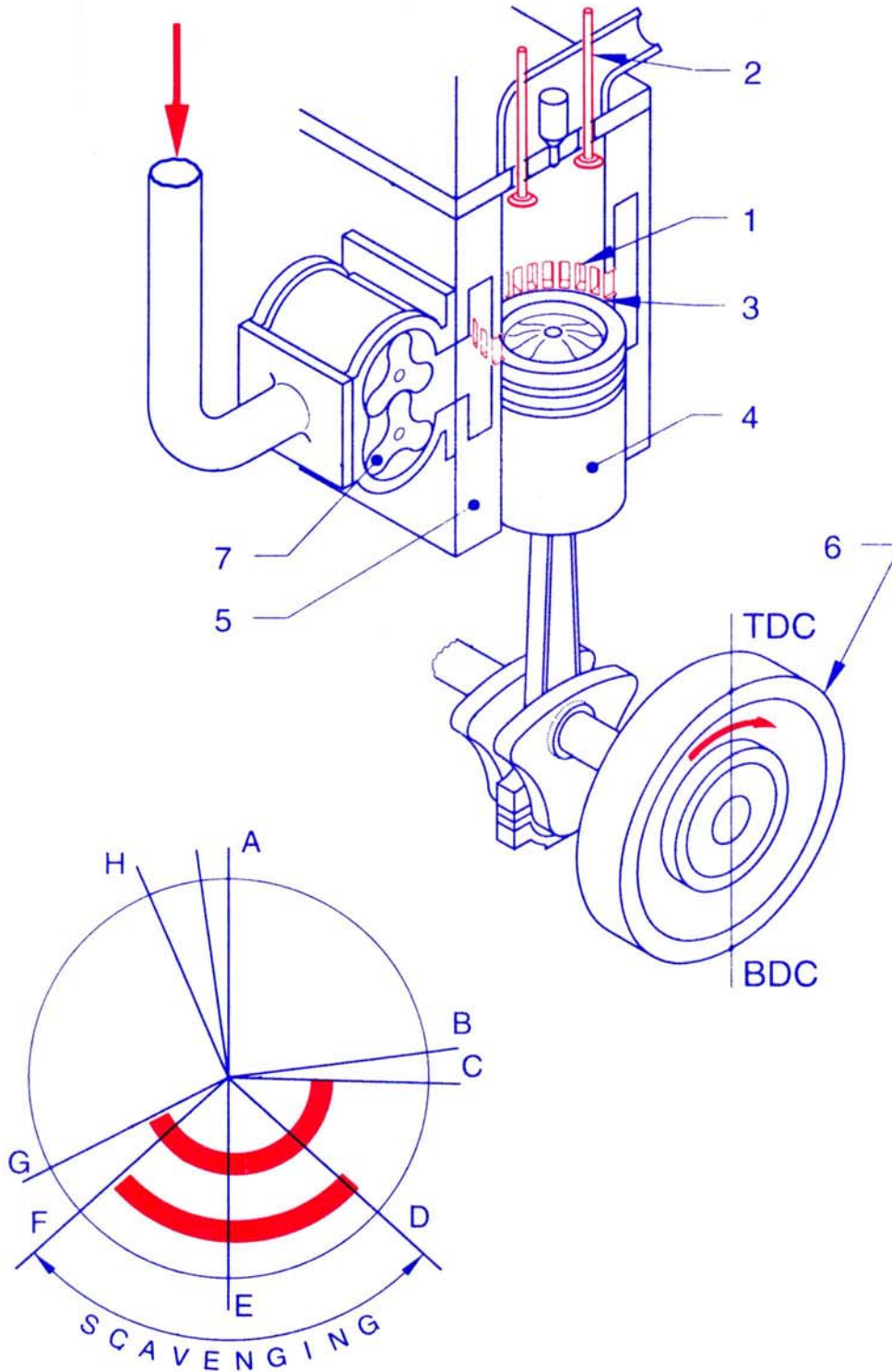


## VALVE TIMING DIAGRAM (4 STROKE CYCLE DIESEL ENGINE)





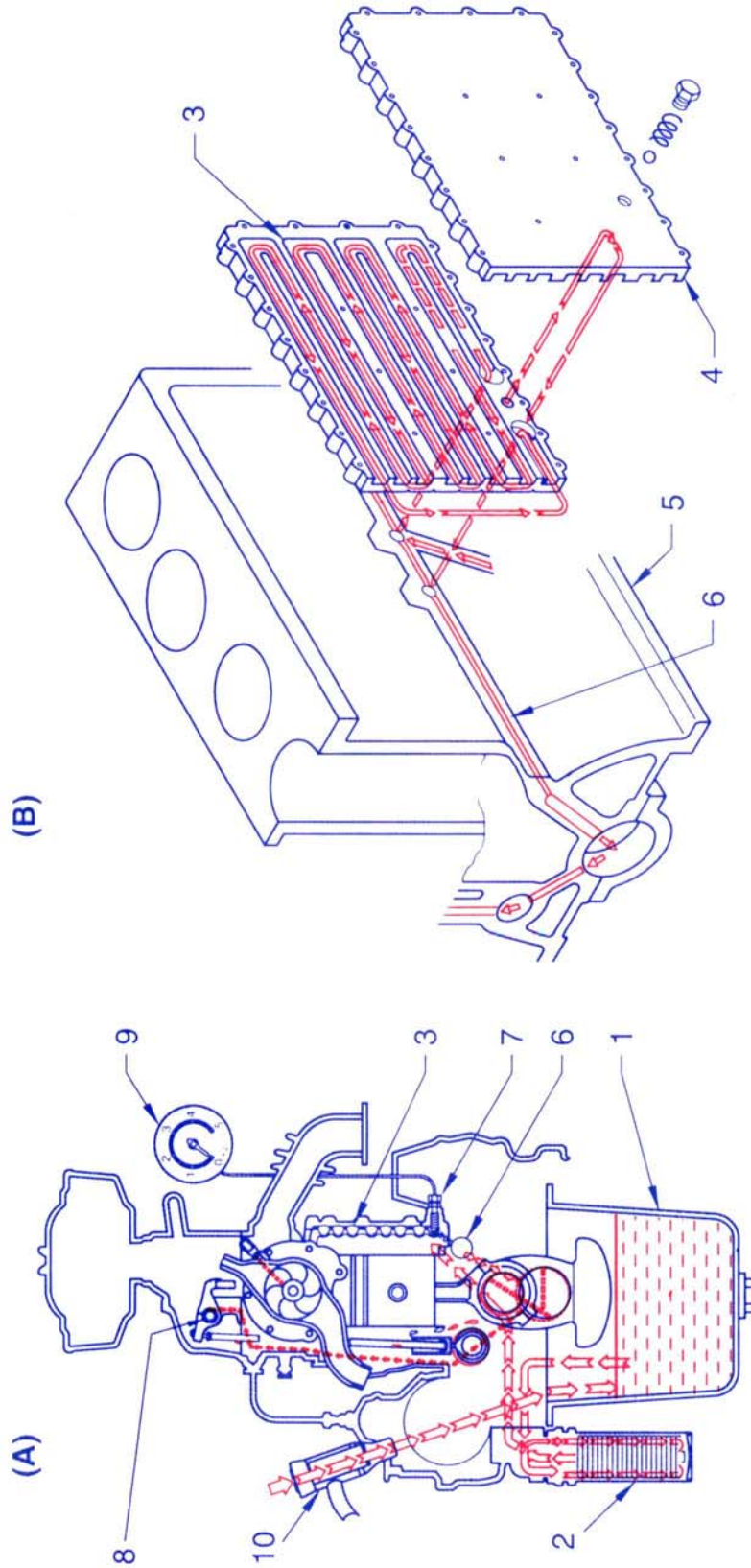
## VALVE TIMING DIAGRAM (2 STROKE CYCLE DIESEL ENGINE)





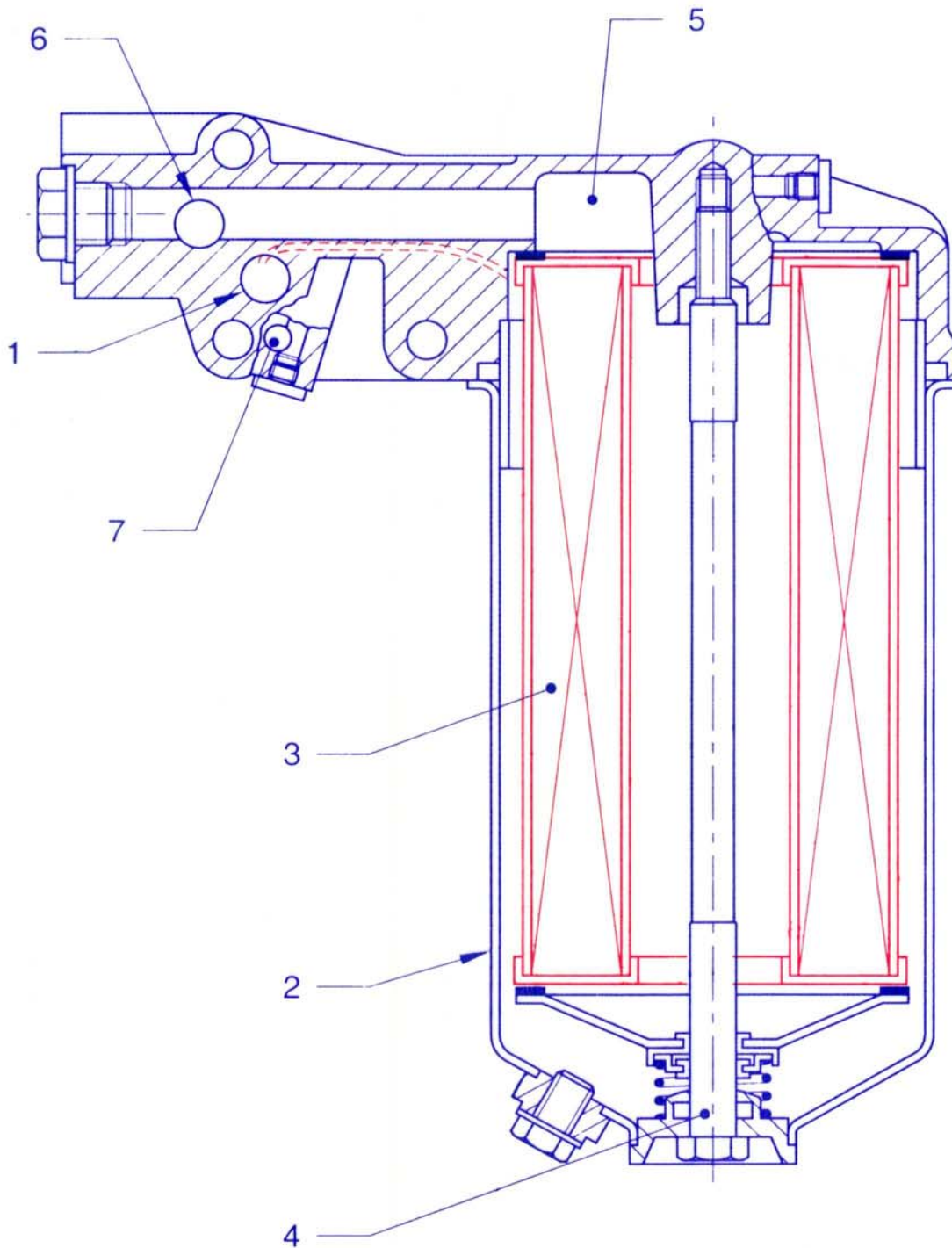


# DIESEL ENGINE LUBRICATION WITH OIL COOLER



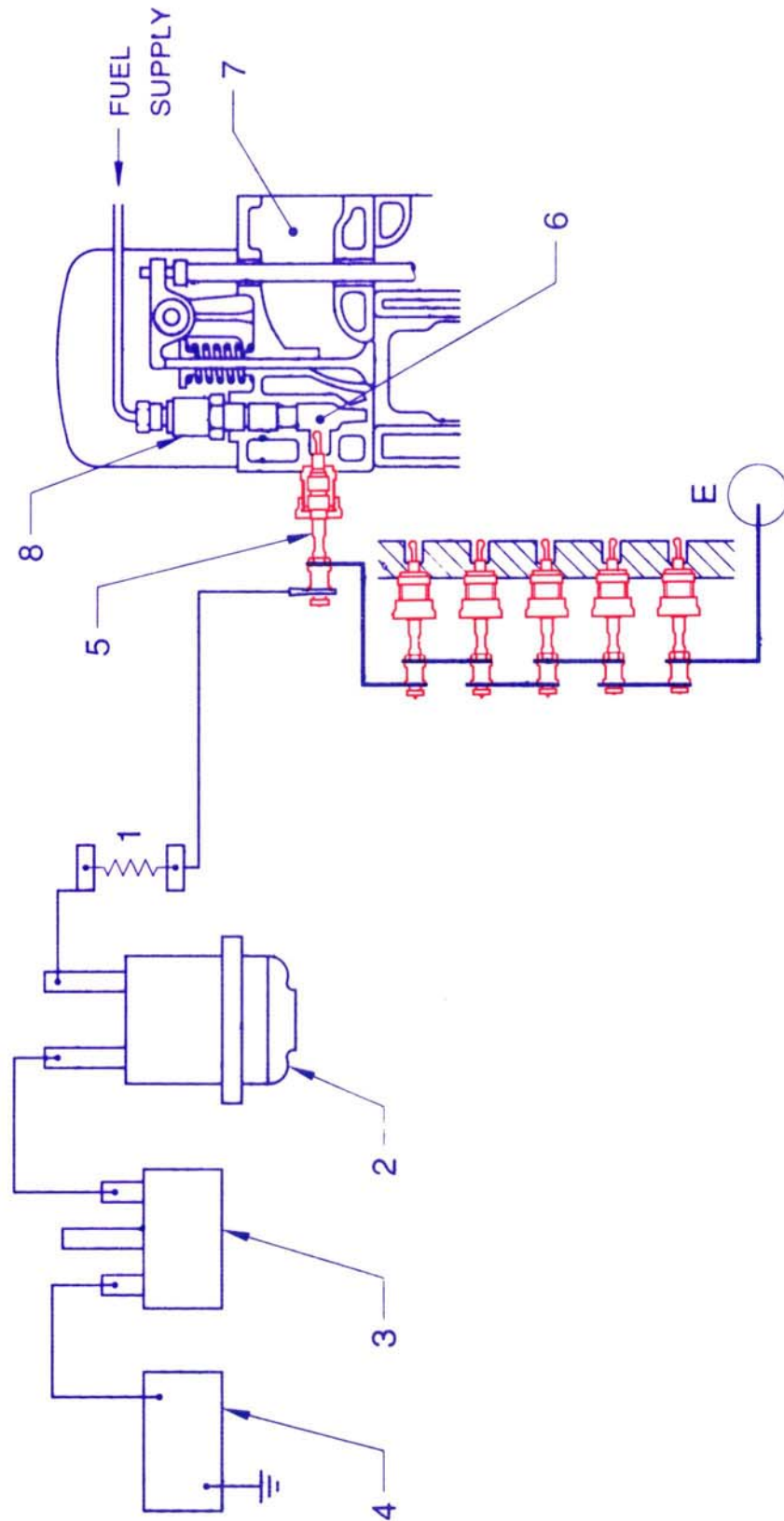


## DIESEL ENGINE LUBRICATION OIL FILTER (FULL FLOW)



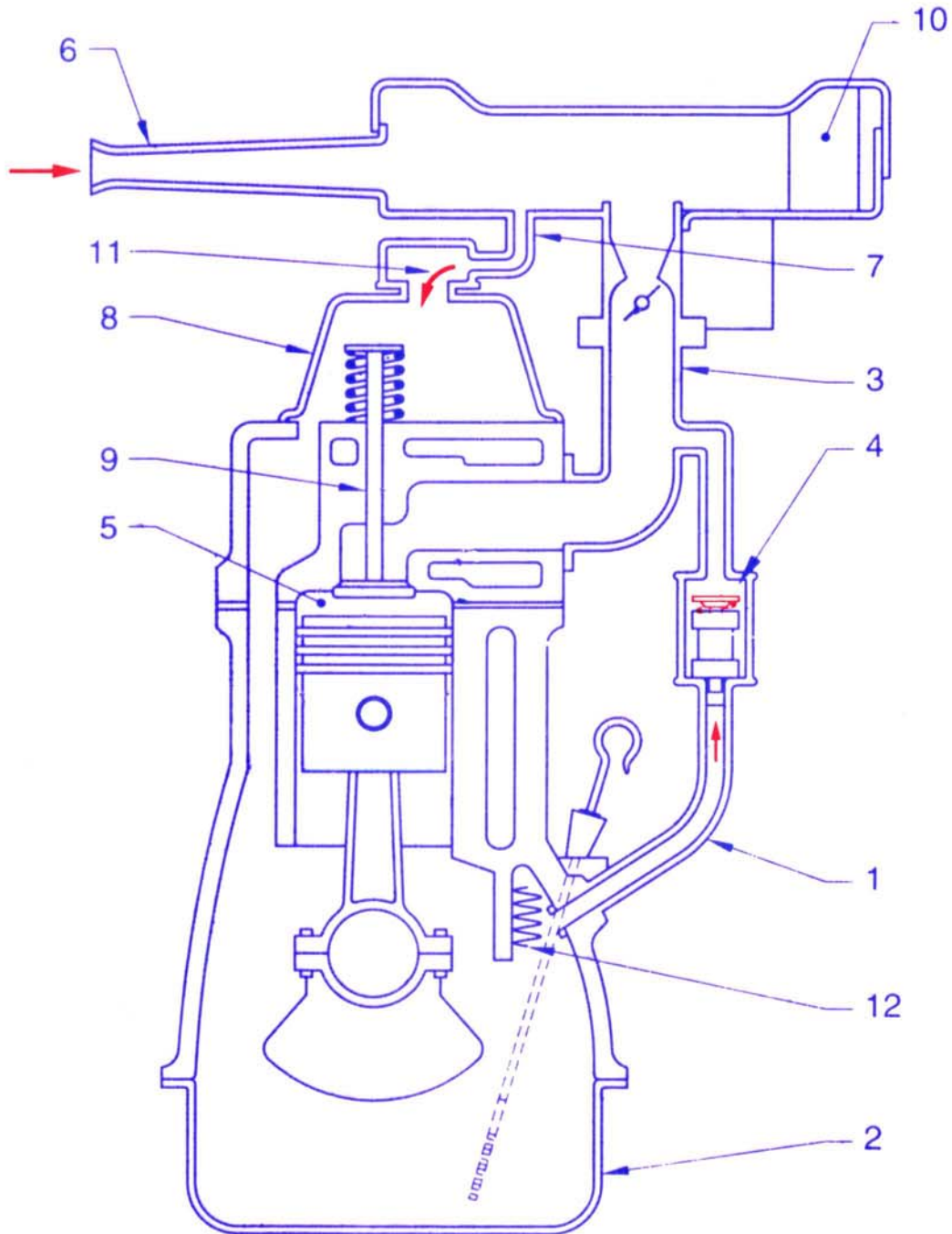


# GLOW PLUG ELECTRICAL CIRCUIT





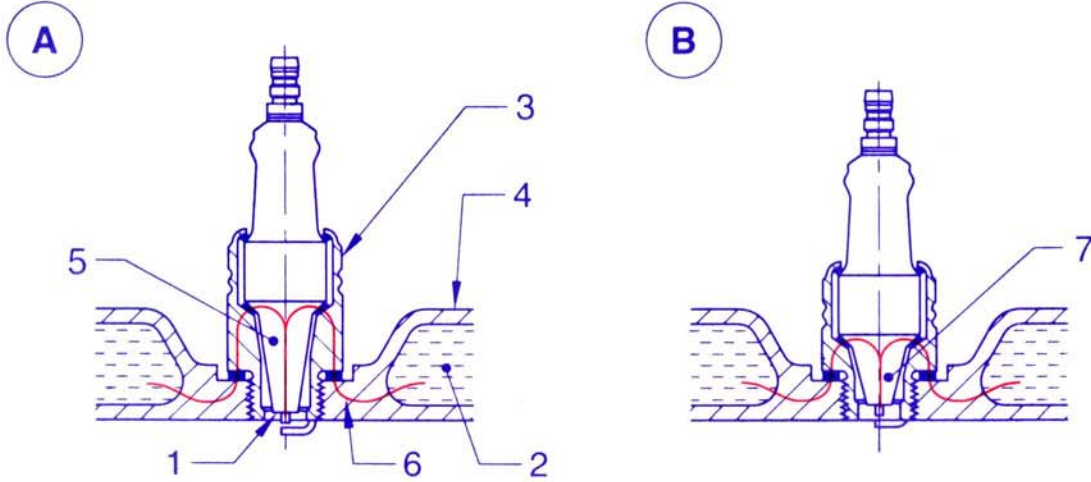
## CRANKCASE VENTILATION



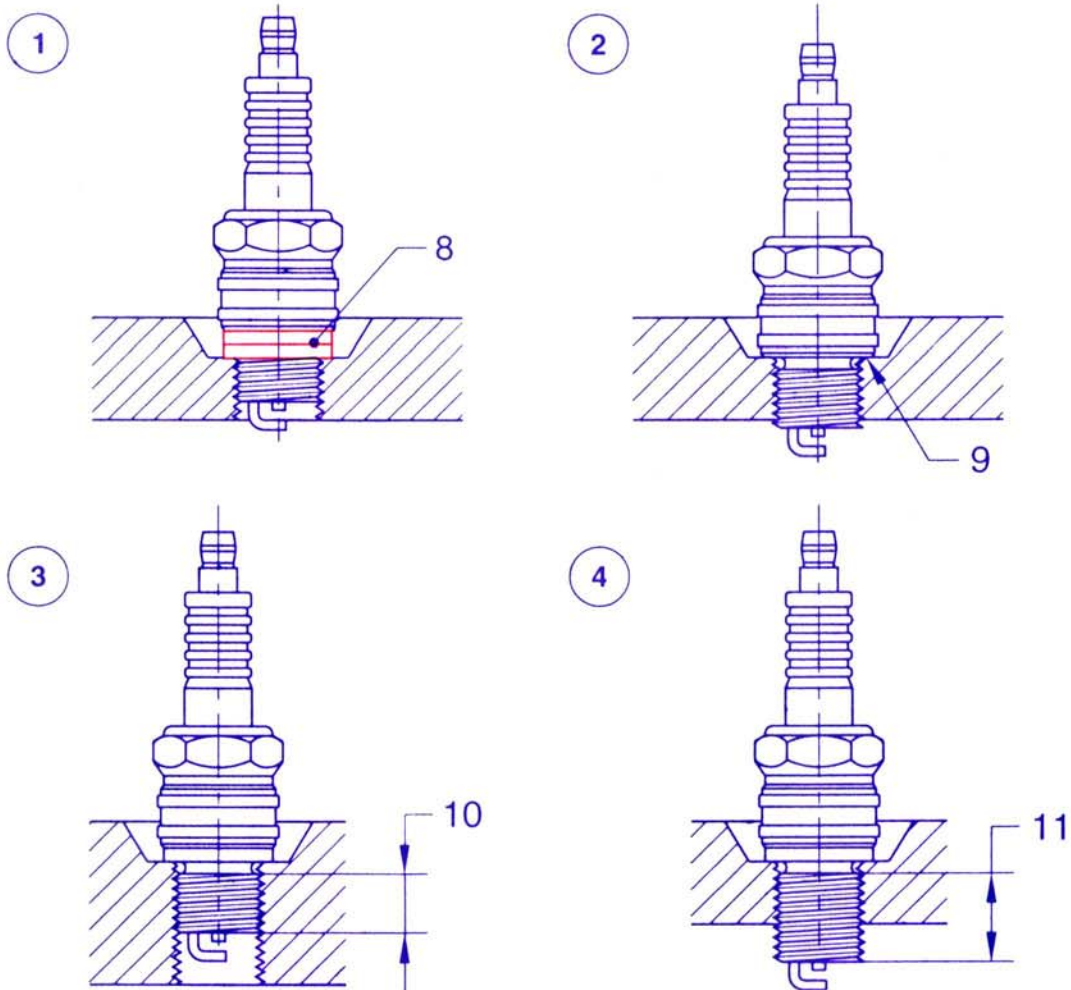




# SPARKING PLUG



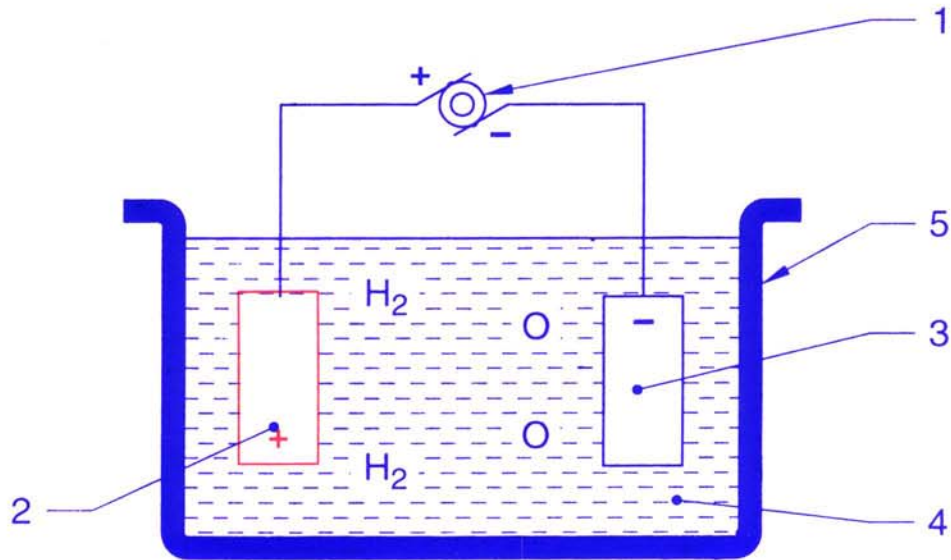
## INSTALLATION



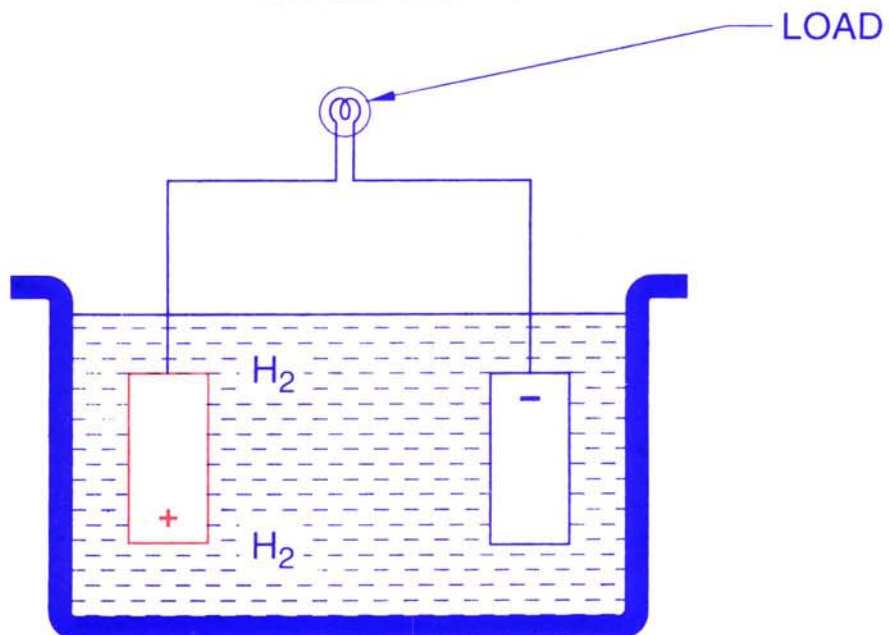


# CHEMICAL ACTION IN LEAD ACID BATTERY

## CHARGING



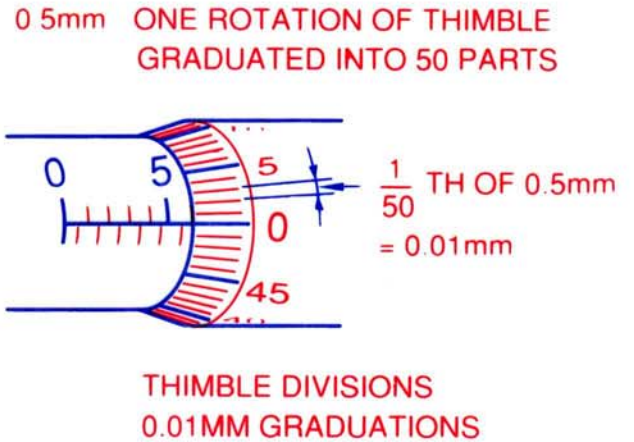
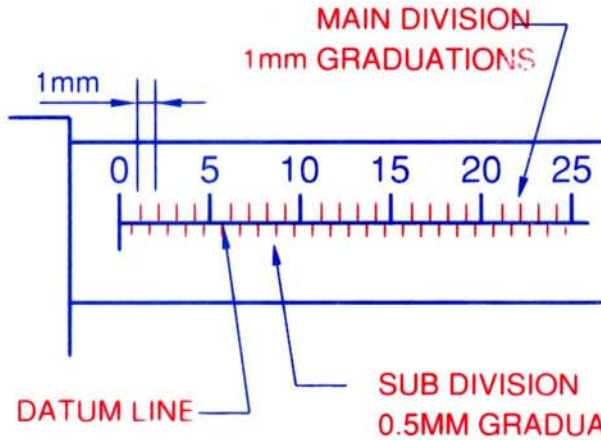
## DISCHARGING



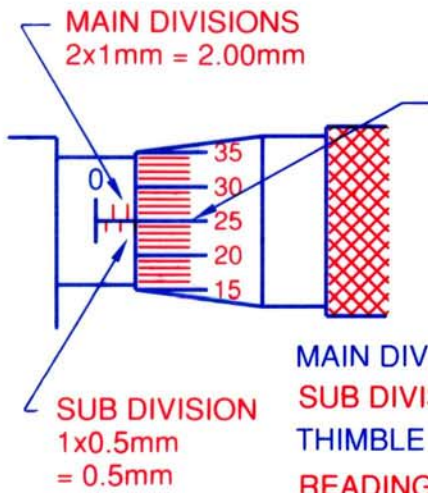


# MICROMETER READING

## MICROMETER GRADUATIONS

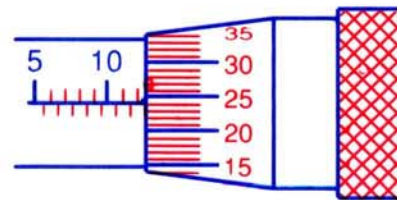


## MICROMETER READING



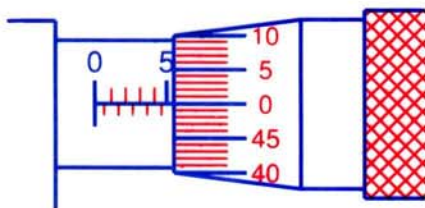
MAIN DIVISIONS = \_\_\_\_\_  
SUB DIVISION = \_\_\_\_\_  
THIMBLE DIVISIONS = \_\_\_\_\_  
READING = \_\_\_\_\_

Example

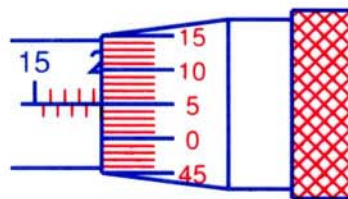


MAIN DIVISIONS = \_\_\_\_\_  
SUB DIVISION = \_\_\_\_\_  
THIMBLE DIVISIONS = \_\_\_\_\_  
READING = \_\_\_\_\_

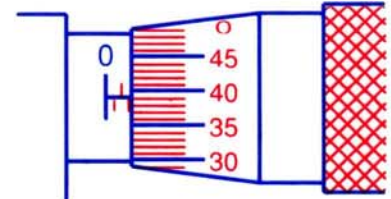
ASSIGNMENTS:-



B READING



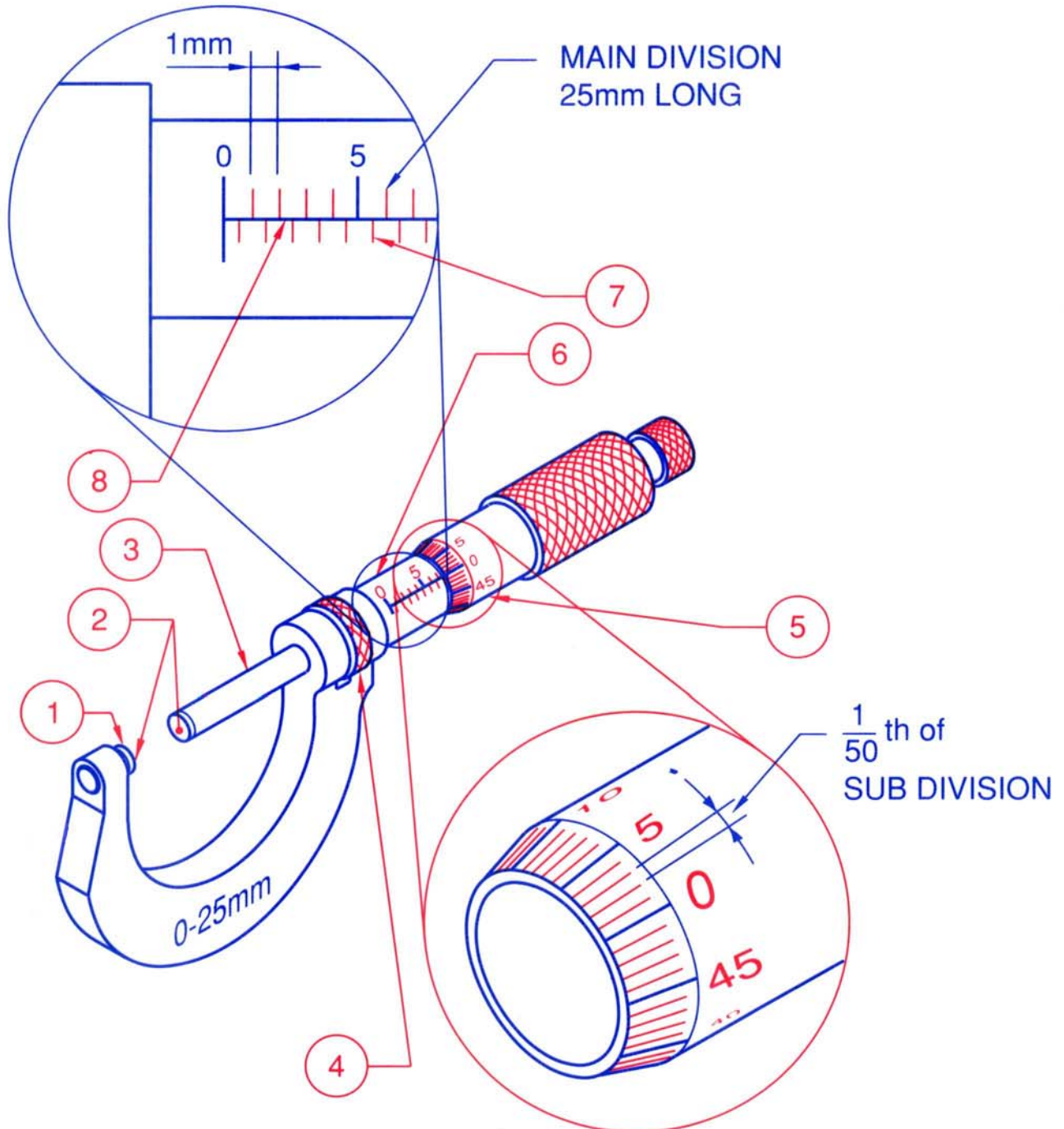
B READING



B READING



## MICROMETER PARTS AND GRADUATIONS



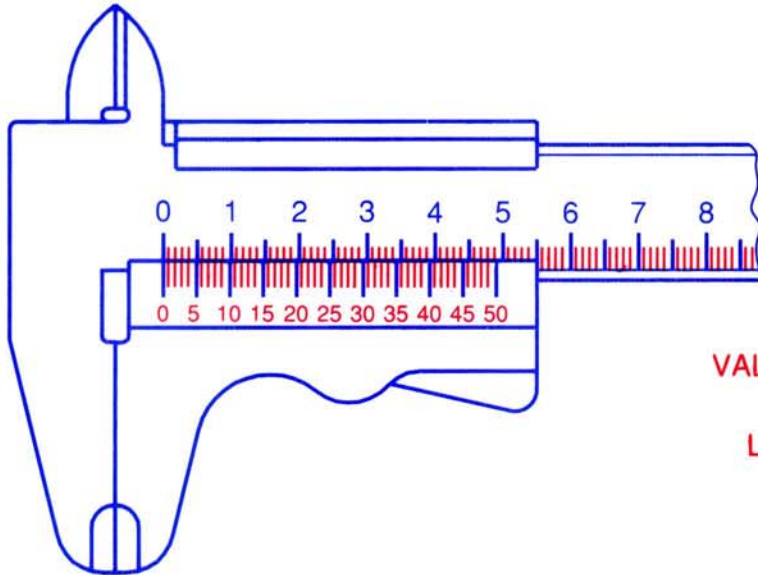
$$\text{LEAST COUNT} = \frac{1}{50} \text{ th of } 0.5\text{mm}$$

$$= \boxed{\phantom{000}}$$



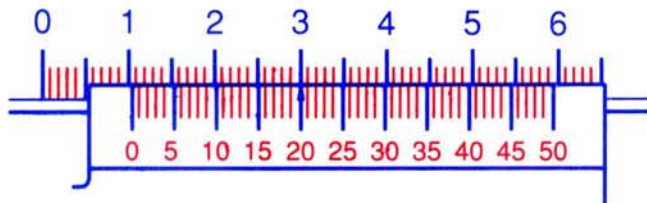


## READING OF VERNIER CALIPER



$$\text{VALUE OF 1 VSD} = \frac{49}{50} \text{ mm}$$

$$\text{LEAST COUNT} = 1 \text{ MD} - 1 \text{ VSD}$$

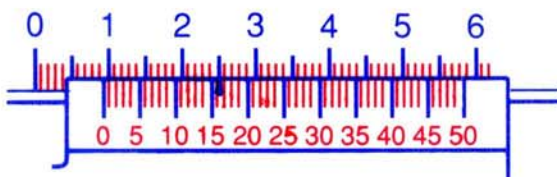


MAIN SCALE READING =

VALUE OF COINCIDING  
VERNIER DIVISION } =

READING =

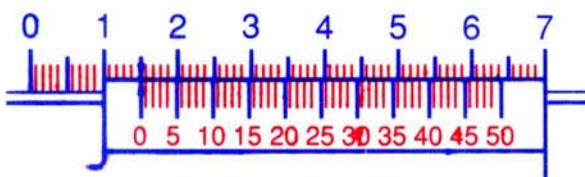
### ASSIGNMENTS:-



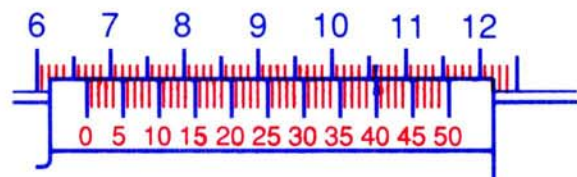
A READING



B READING



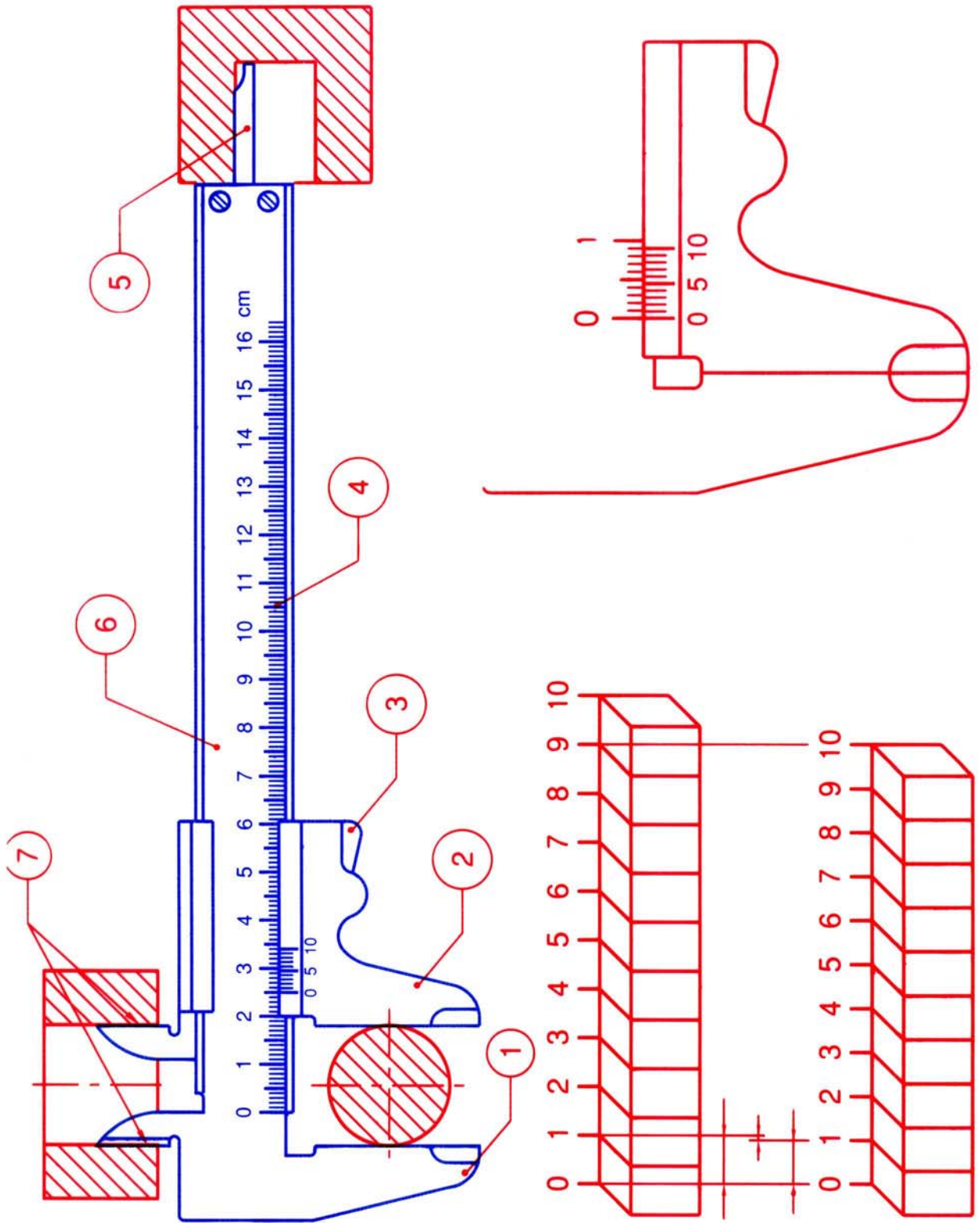
C READING



D READING



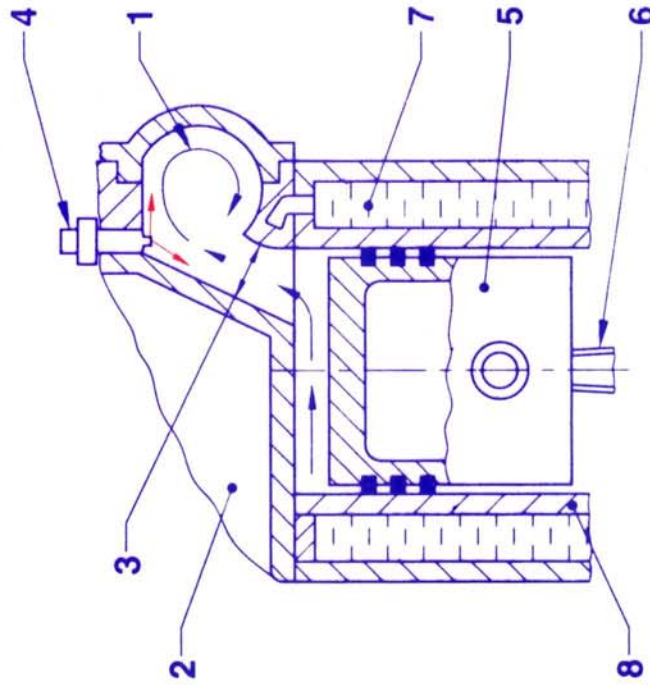
# VERNIER CALIPER PARTS AND PRINCIPLE



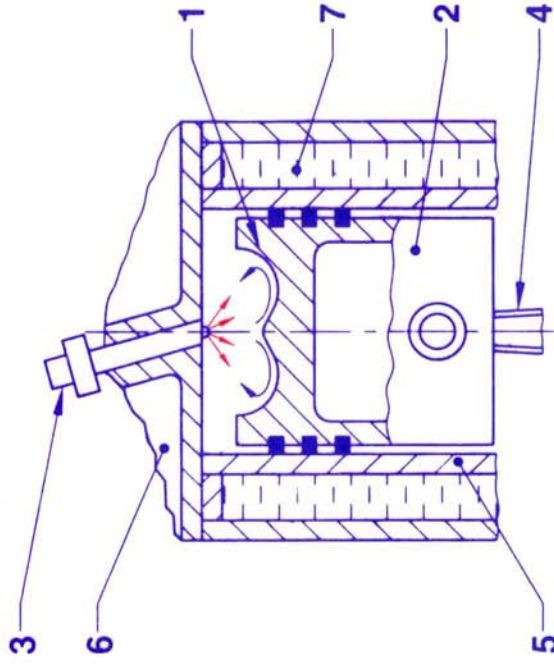


# COMBUSTION CHAMBERS

(A) INDIRECT INJECTION  
AERO FLOW CHAMBER



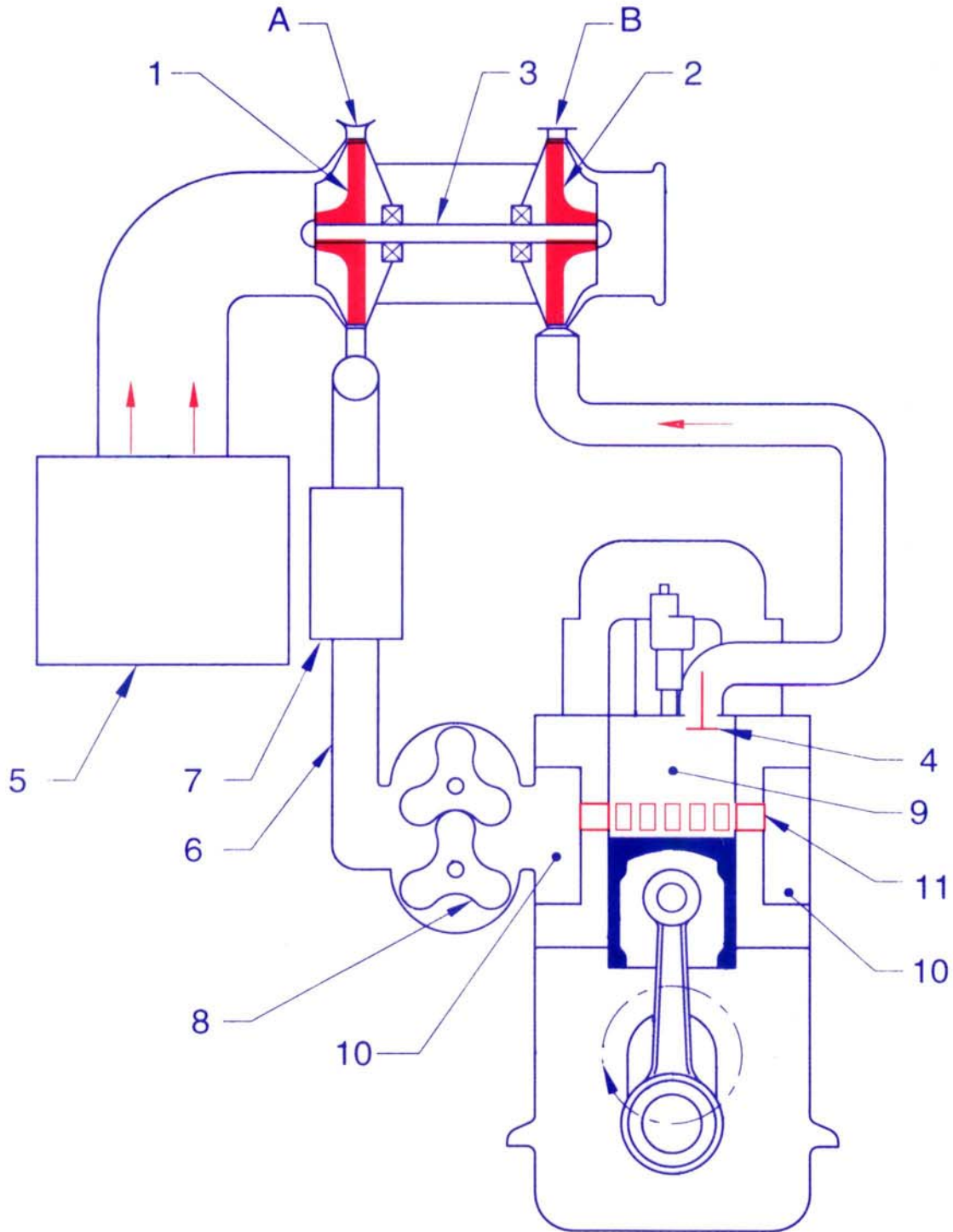
(B) DIRECT INJECTION  
OPEN COMBUSTION CHAMBER







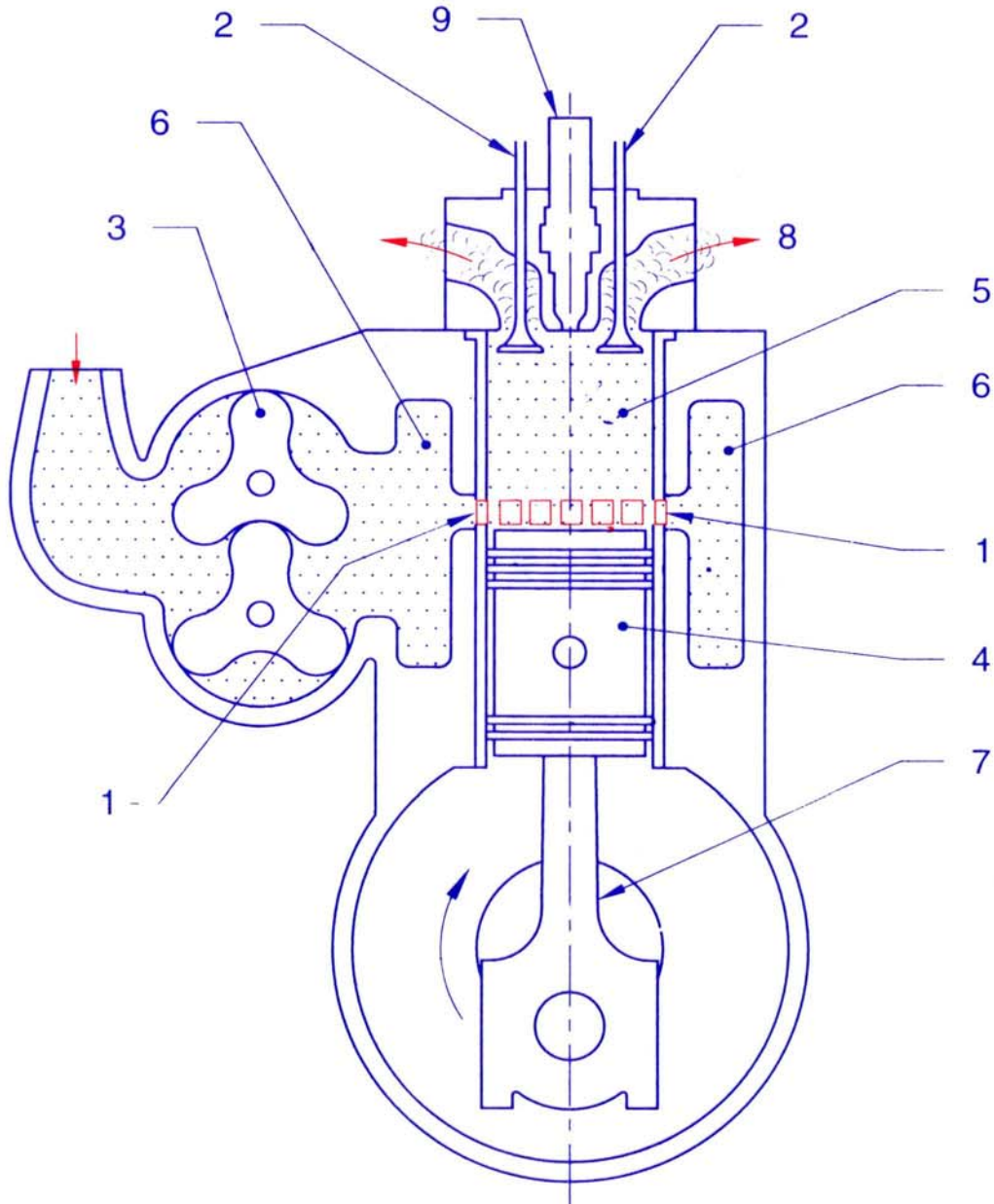
# TURBO-CHARGED ENGINE (TWO STROKE DIESEL)





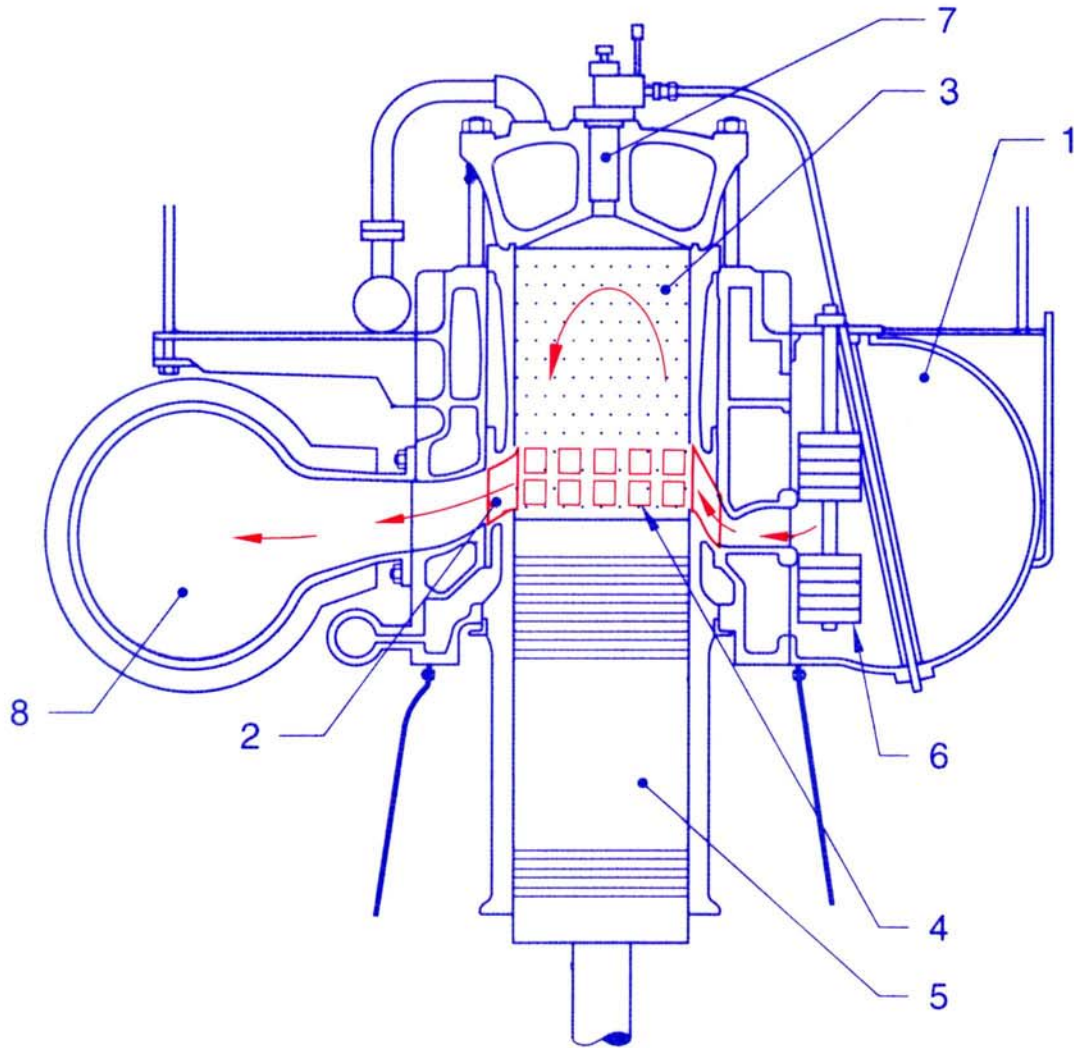


# UNIFLOW SCAVENGE





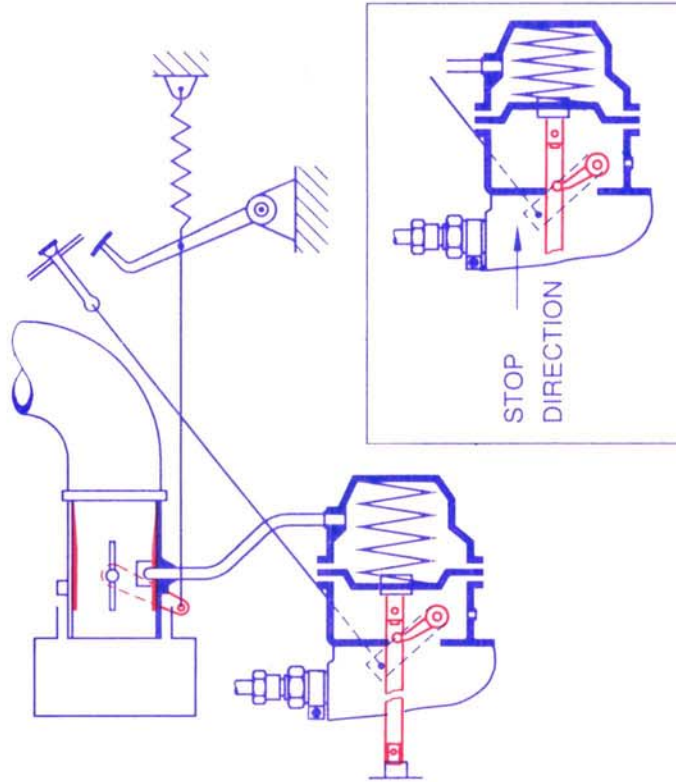
# SCAVENGING SYSTEM (DIESEL) LOOP SCAVENGE



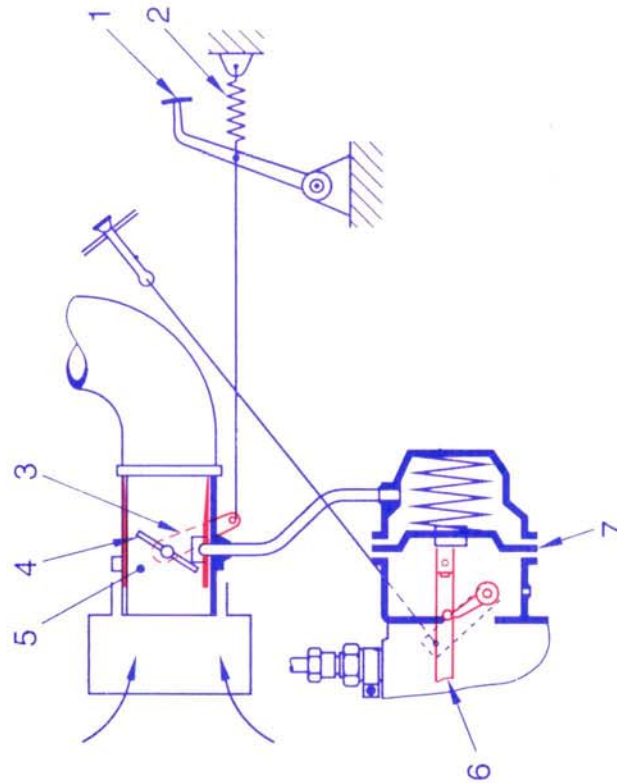


# PNEUMATIC GOVERNOR FUNCTION

MAXIMUM RATED SPEED



IDLING



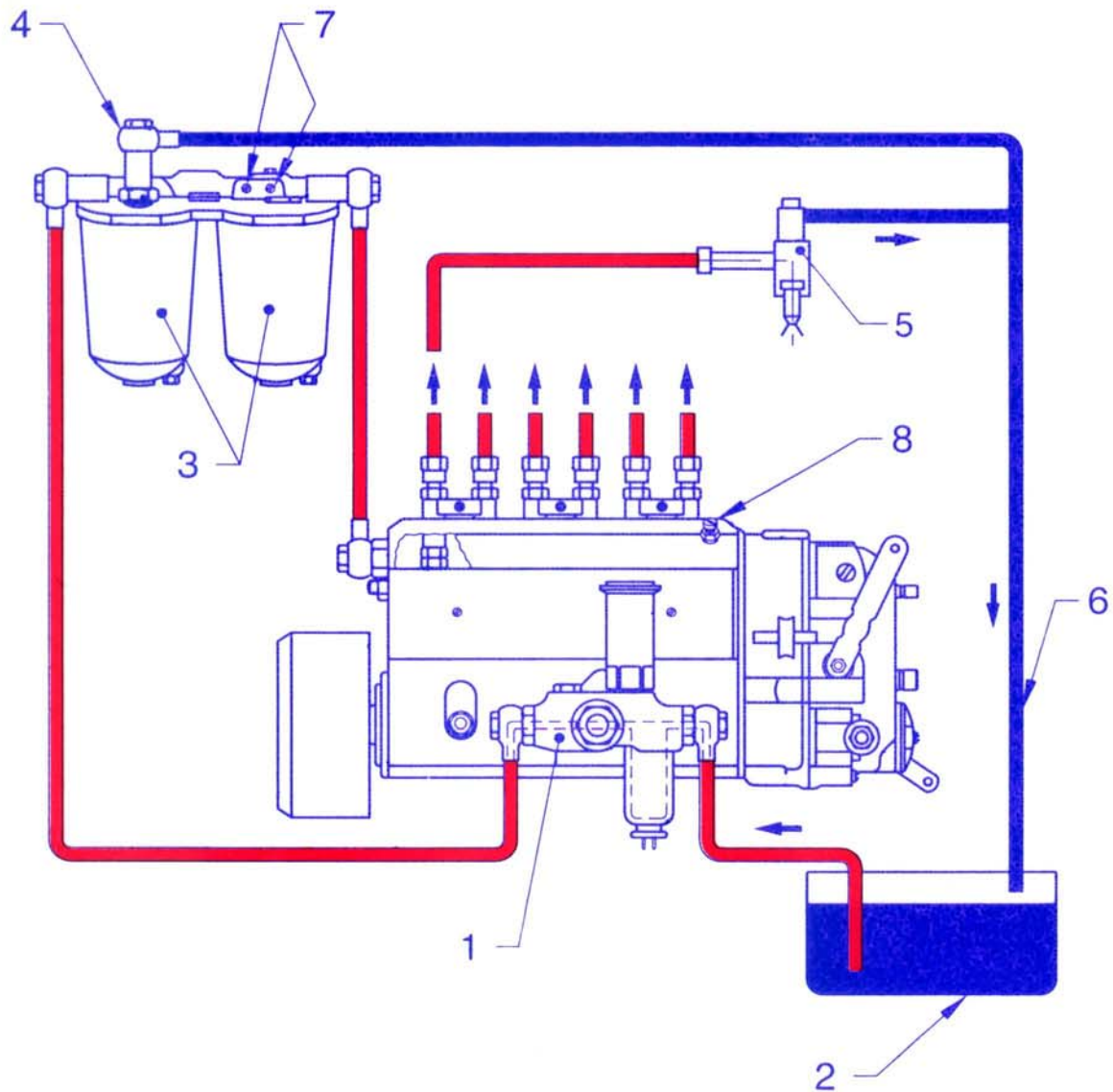






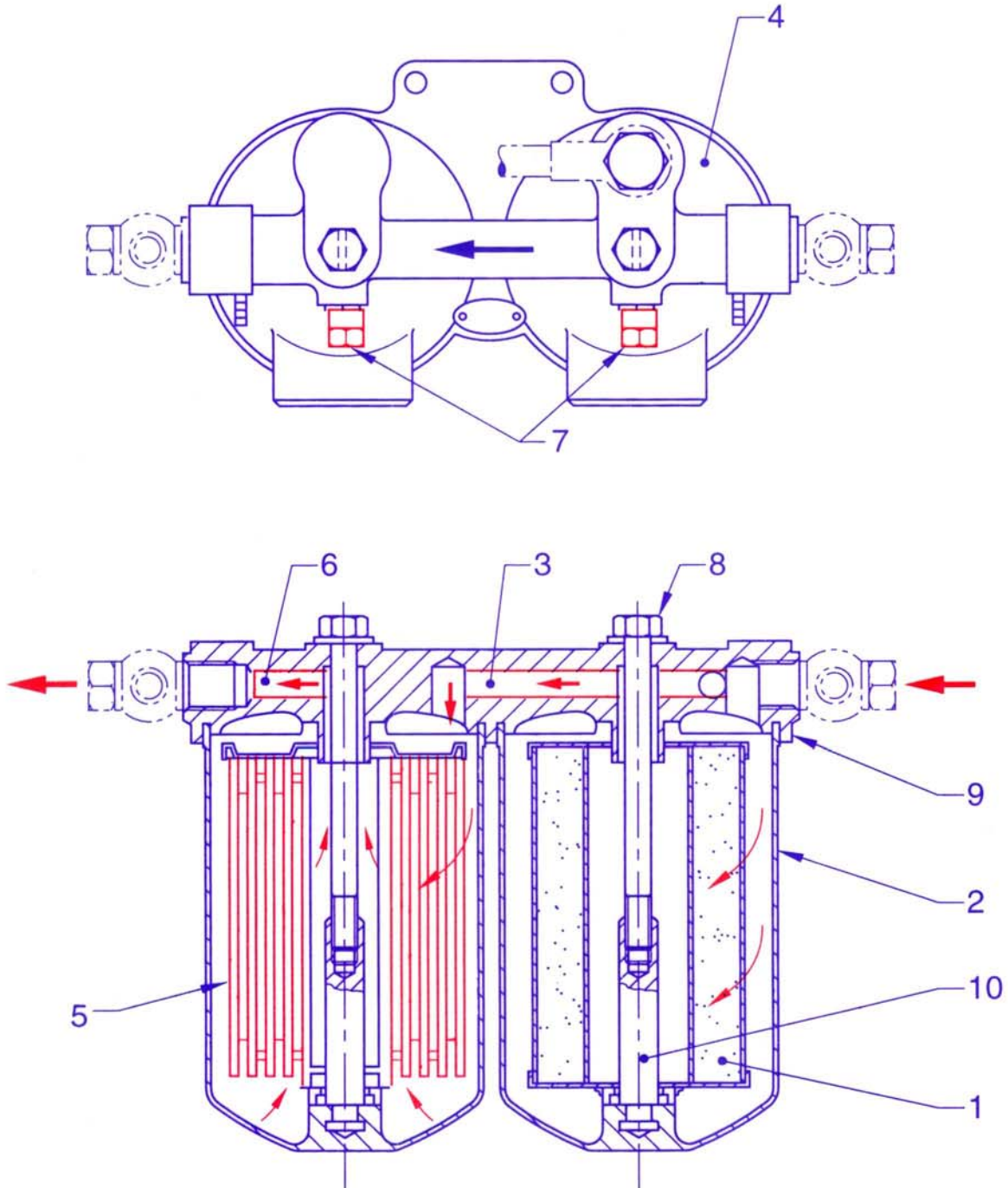


## FUEL FEED SYSTEM (DIESEL INLINE JERK PUMP)



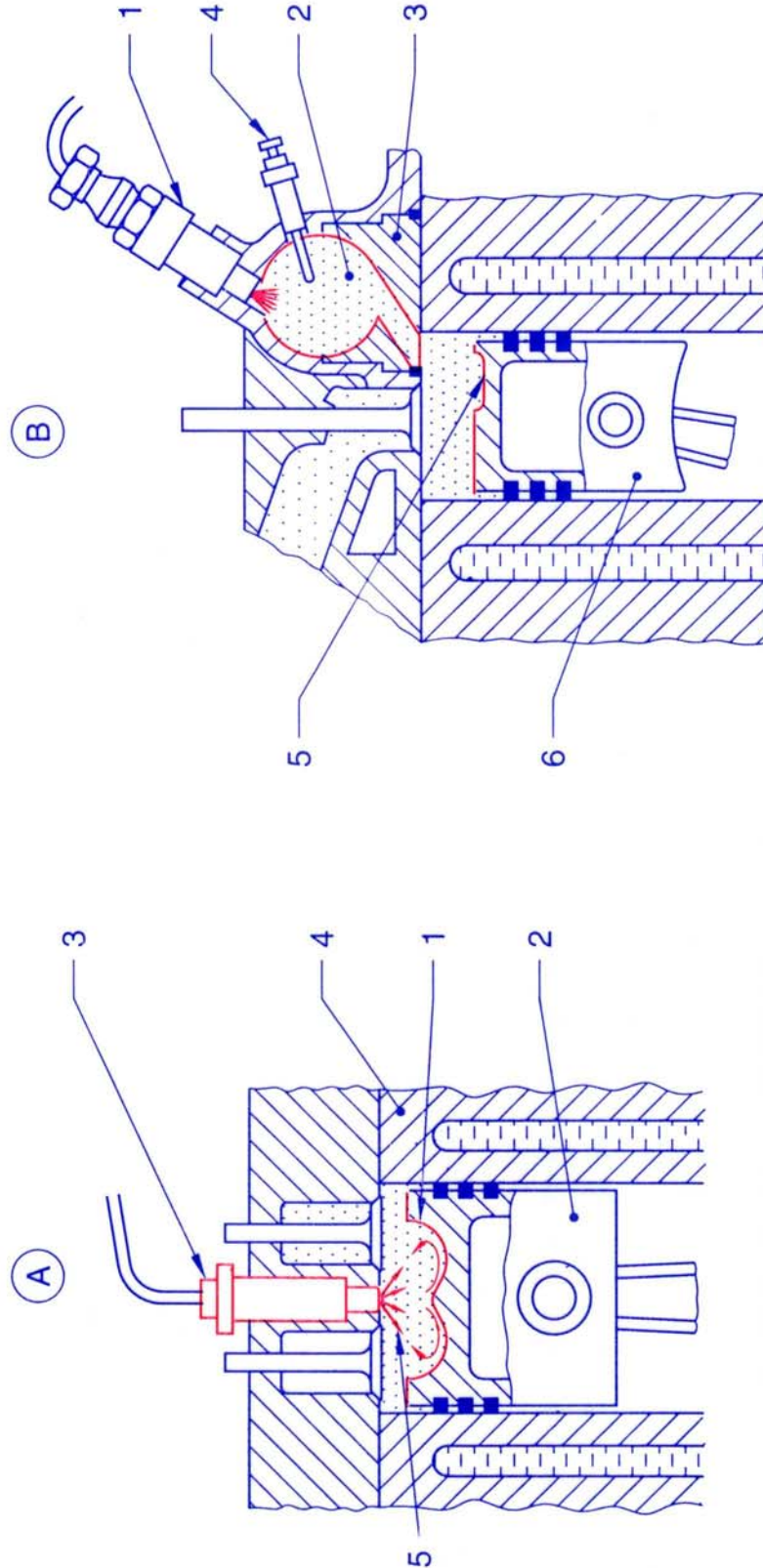


## DIESEL ENGINE FUEL FILTER





# COMPARISON OF FUNCTION MULTI HOLE AND PINTLE NOZZLES

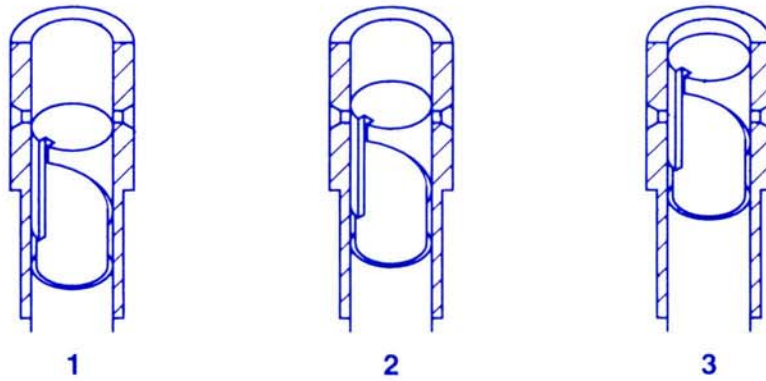




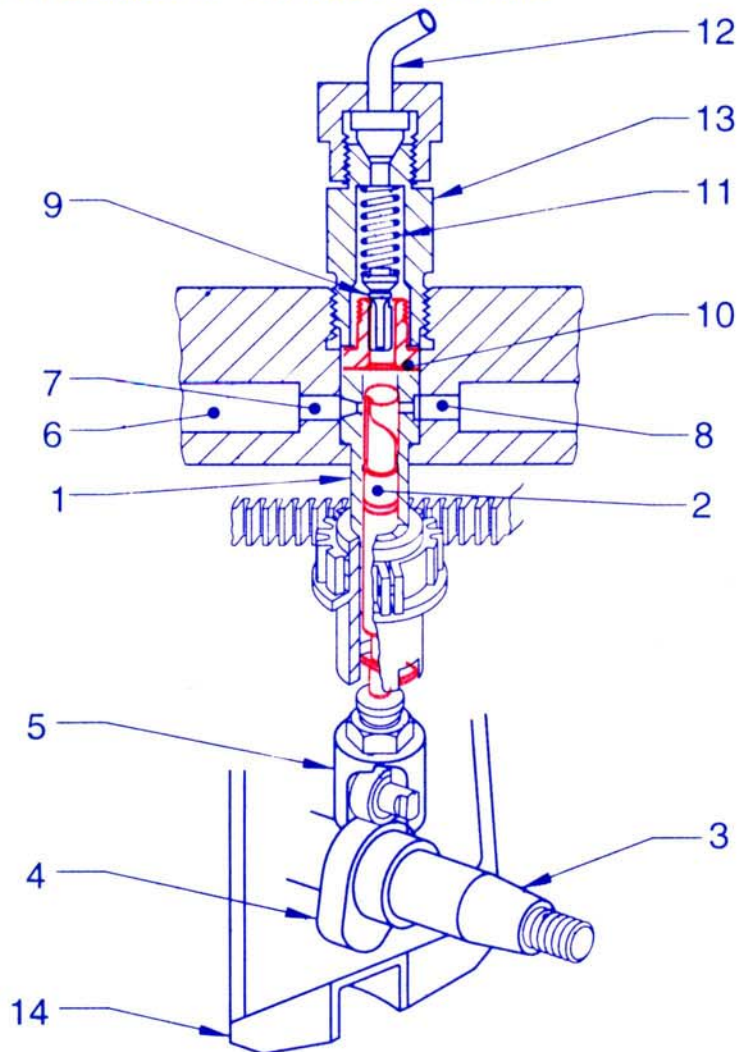


# FUEL INJECTION PUMP

(A) FUEL DELIVERY POSITION



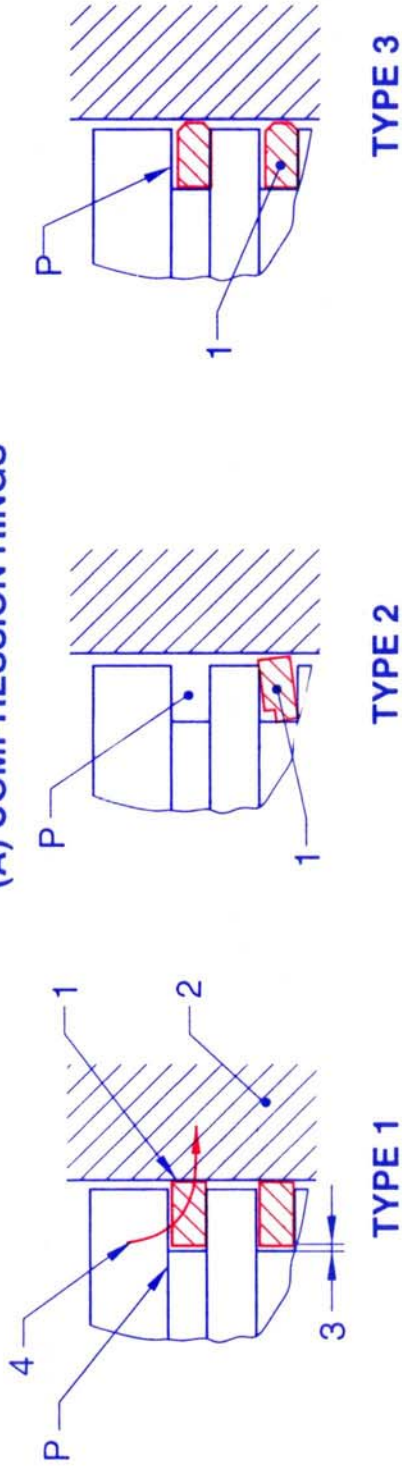
(B) ARRANGEMENT OF PLUNGER & BARREL





# PISTON RINGS ASSEMBLY

(A) COMPRESSION RINGS



(B) OIL CONTROL RINGS

