



# 2 Stroke & 4 Stroke Diesel Engine

Prepared By,

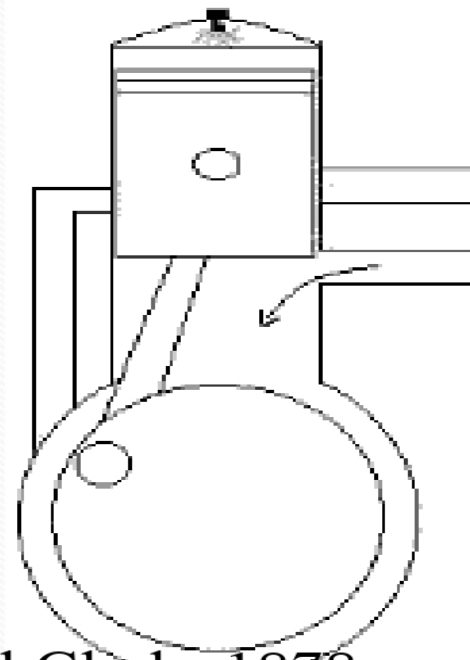
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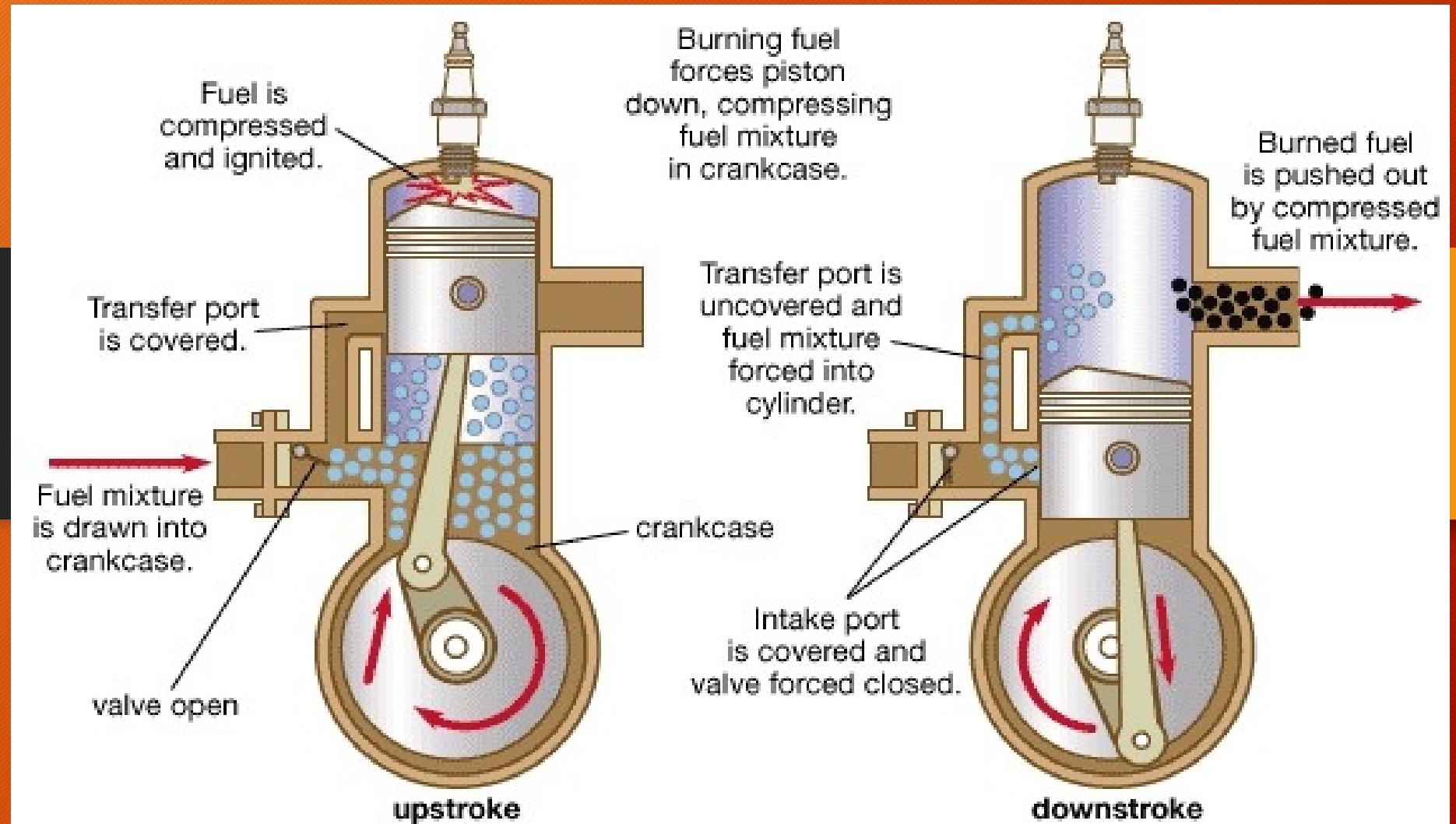
## 2-Stroke Diesel Engine

Sir **Dugald Clerk** KBE, FRS (1854, Glasgow – 1932, Ewhurst, Surrey) was a Scottish engineer who designed the world's first successful two-stroke engine in 1878 and patented it in England in 1881.

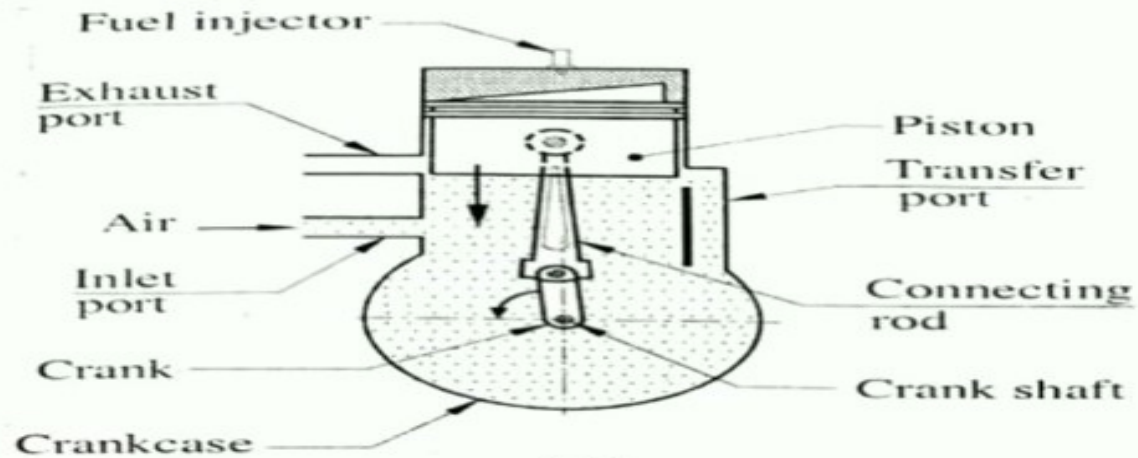


2-Cycle Engine; Du gal Clerk -1878

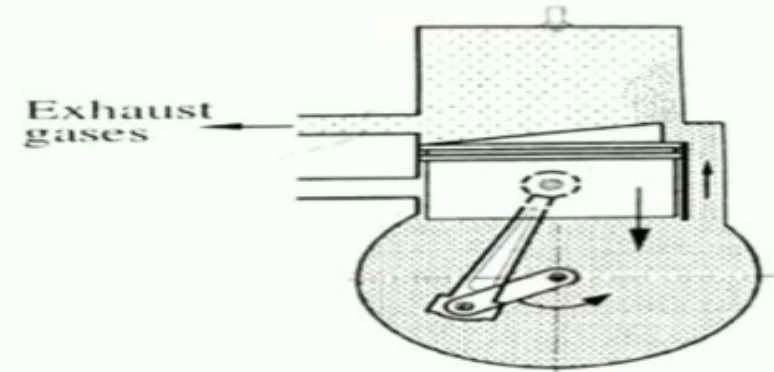
# 2 Stroke Diesel Engine



# 2 Stroke Diesel Engine Cycle

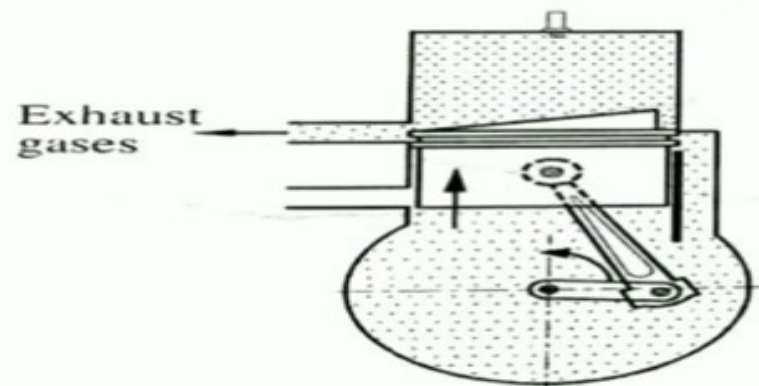


(A)  
*Beginning of the first stroke*

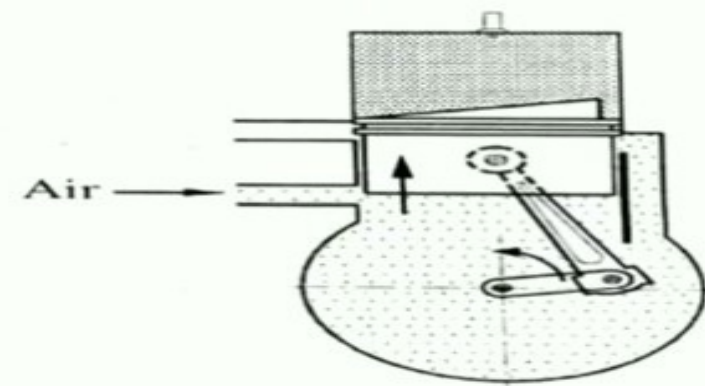


(B)  
*Piston uncovers transfer port during the first stroke*

## First Stroke

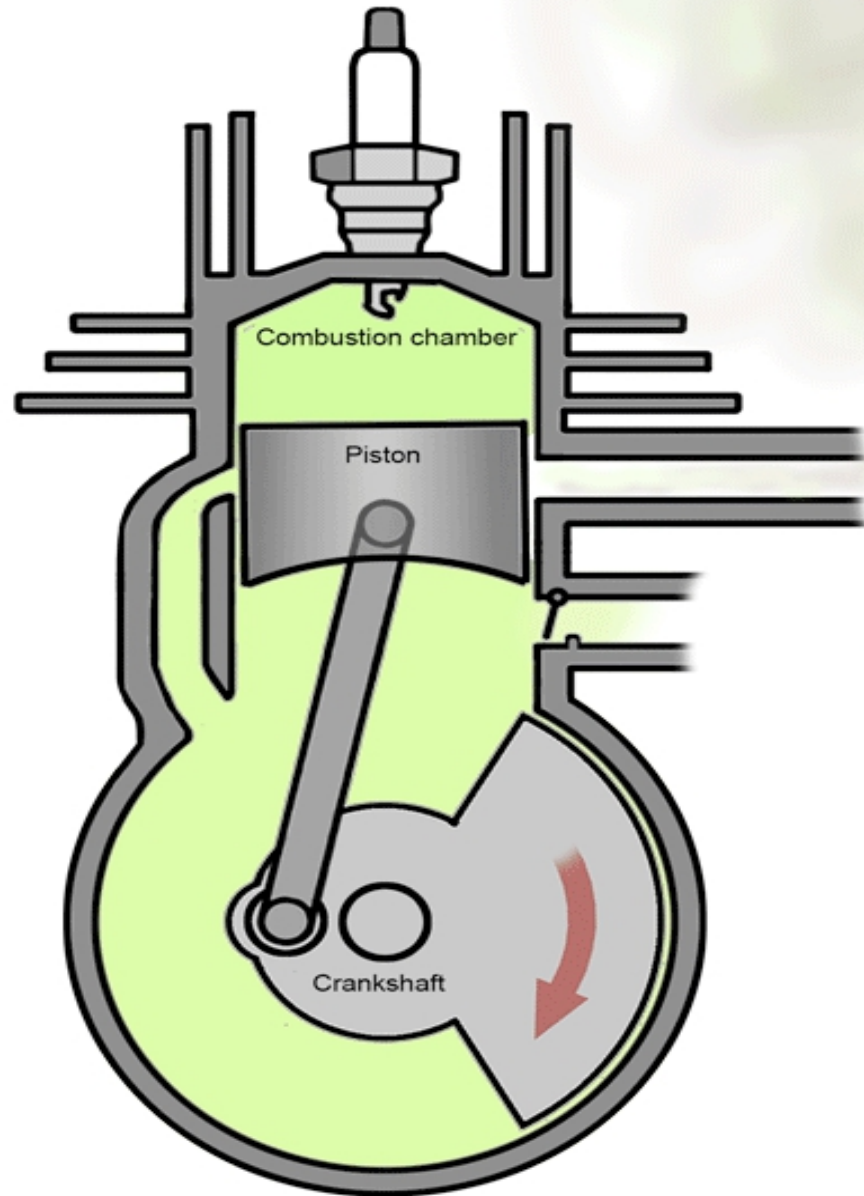


(C)  
*Transfer port covered*



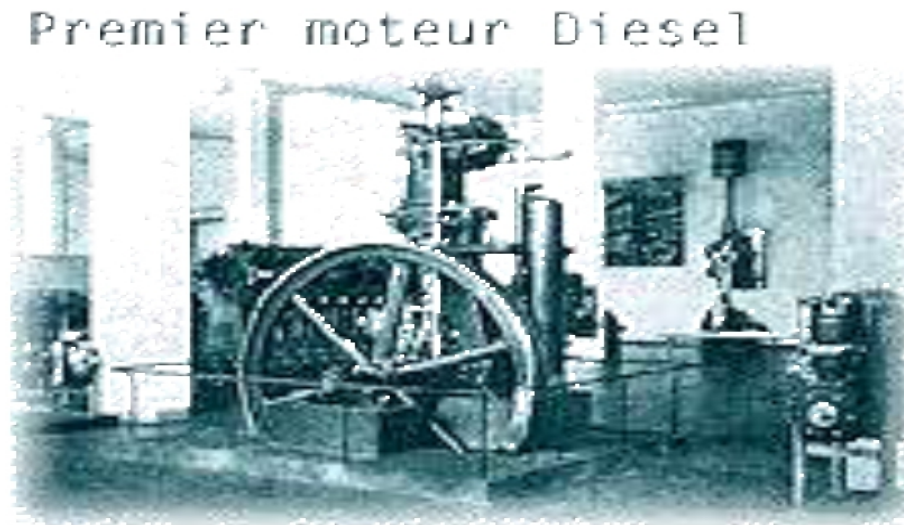
(D)  
*Compression commenced*

## Second Stroke



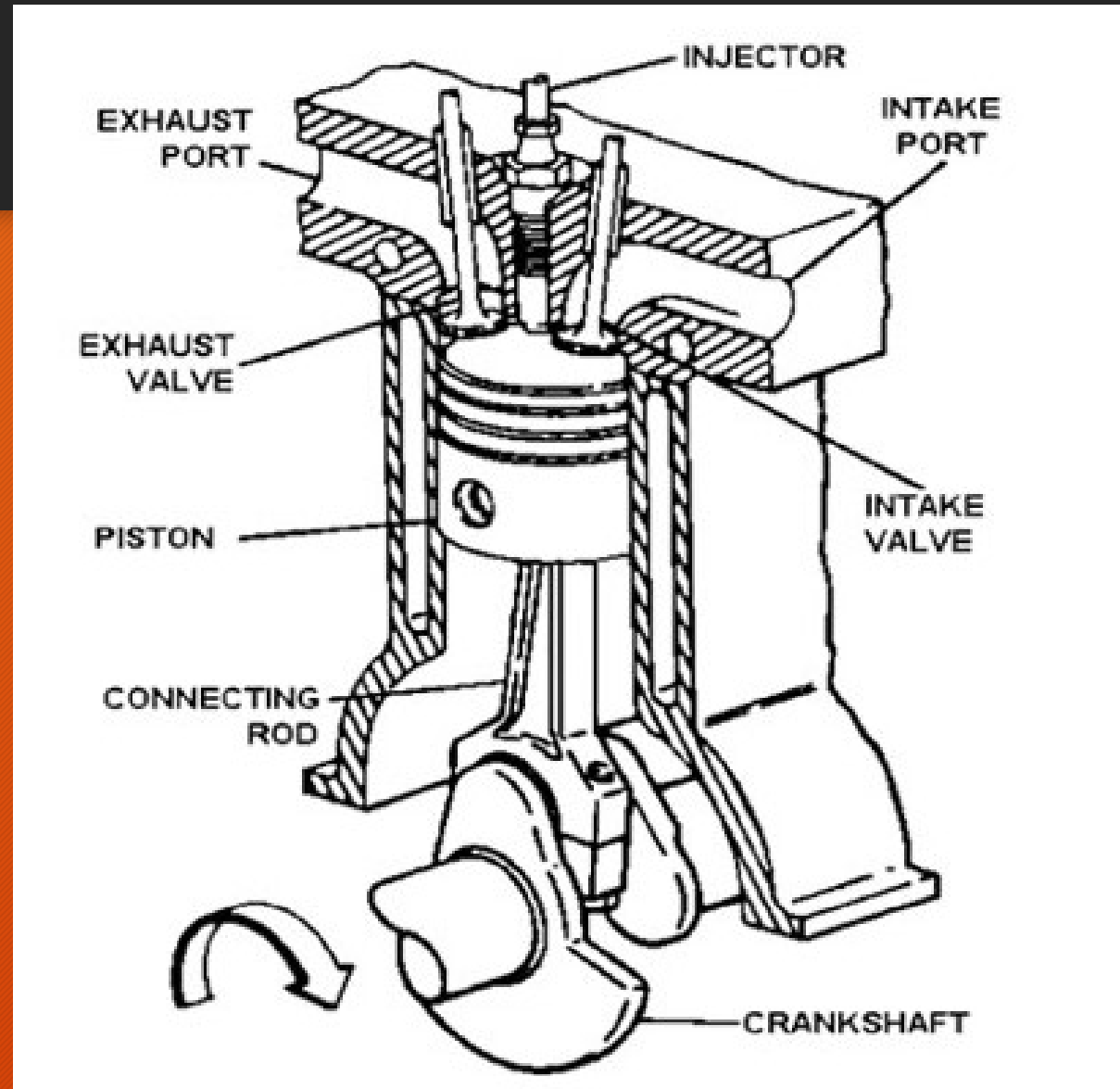
# 4-Stroke Diesel Engine

**Rudolf Christian Karl Diesel** (March 18, 1858 – September 29, 1913) was a German inventor and mechanical engineer, famous for the invention of the 4-stroke diesel engine.

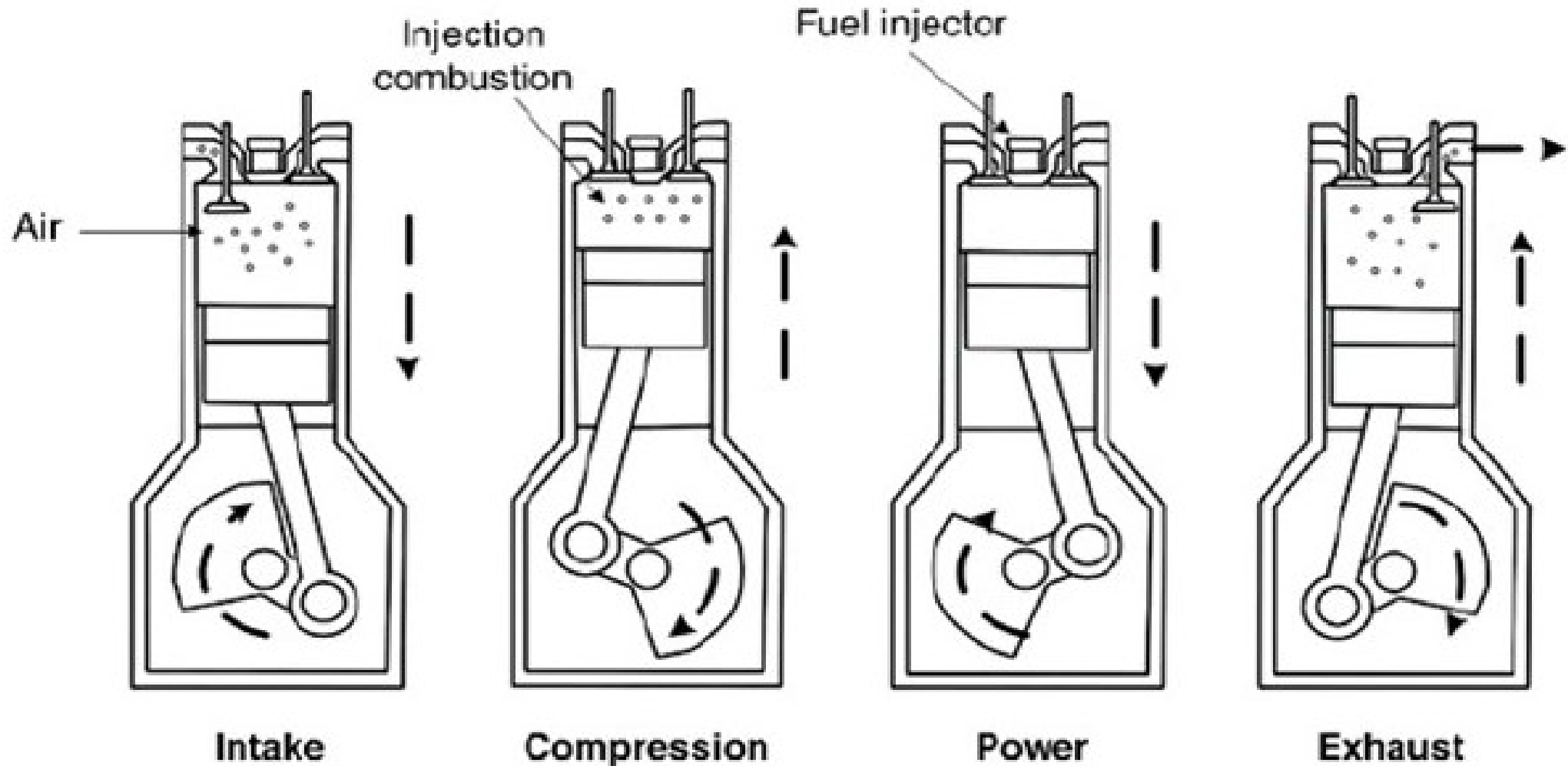


Diesel Engine - Dr. Rudolph Diesel -1895

# Schematic View of 4 Stroke Diesel Engine



# 4 Stroke Diesel Engine





## 1. Suction Stroke-

1. Piston moves from TDC to BDC
2. Opening of intake valve
3. Suction of the air

## 3. Power/ Expansion/Working Stroke-

1. Burning of diesel by the hot gases.
2. Piston moves from TDC to BDC.
3. Intake and Exhaust valve remains closed.

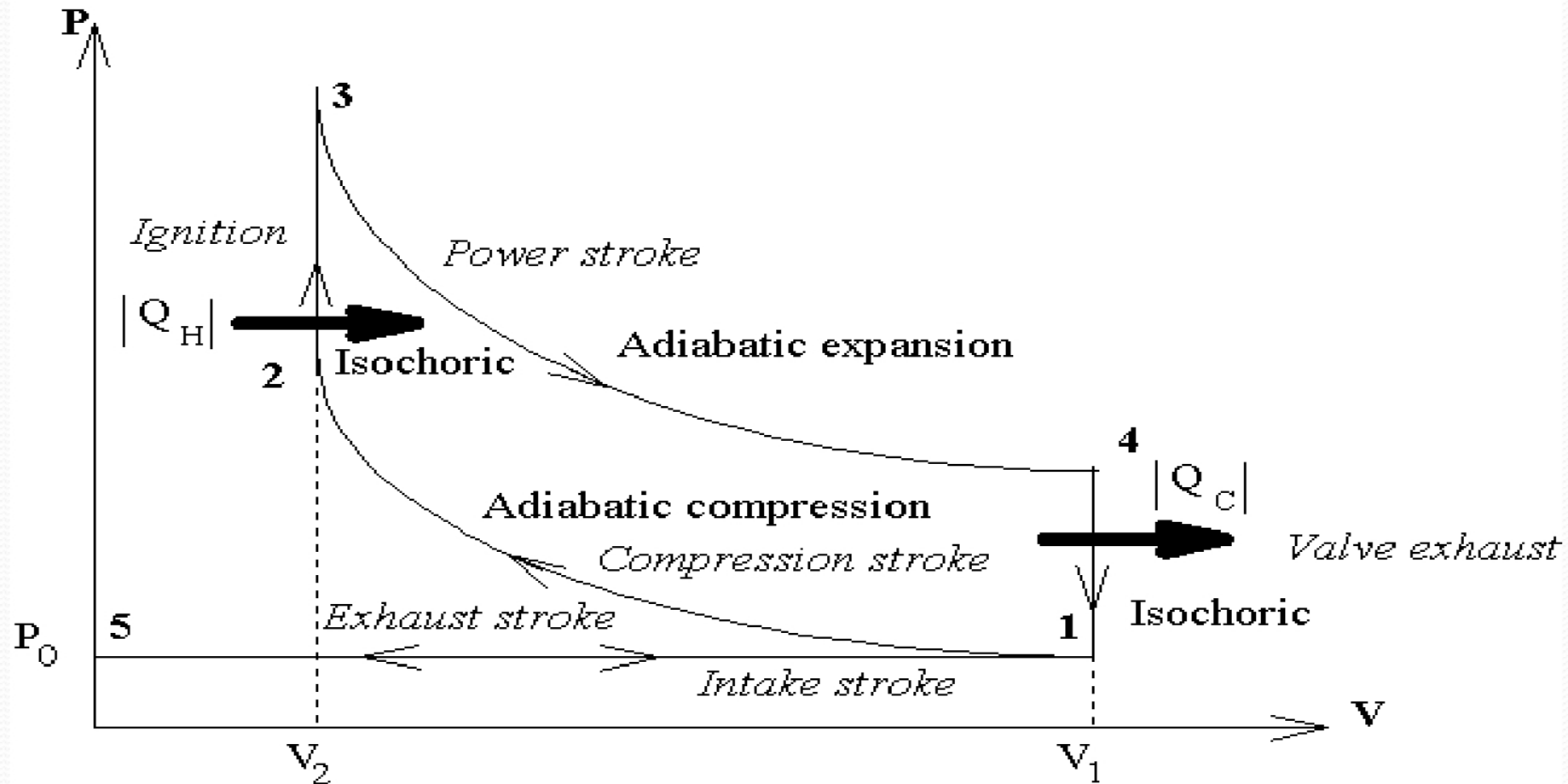
## 2. Compression Stroke-

1. Piston moves from BDC to TDC
2. Compression of air
3. Intake and Exhaust valve remains closed

## 4. Exhaust Stroke-

1. Piston moves from BDC to TDC.
2. Opening of the Exhaust Valve.
3. Escaping of the hot burnt gases through exhaust valve.

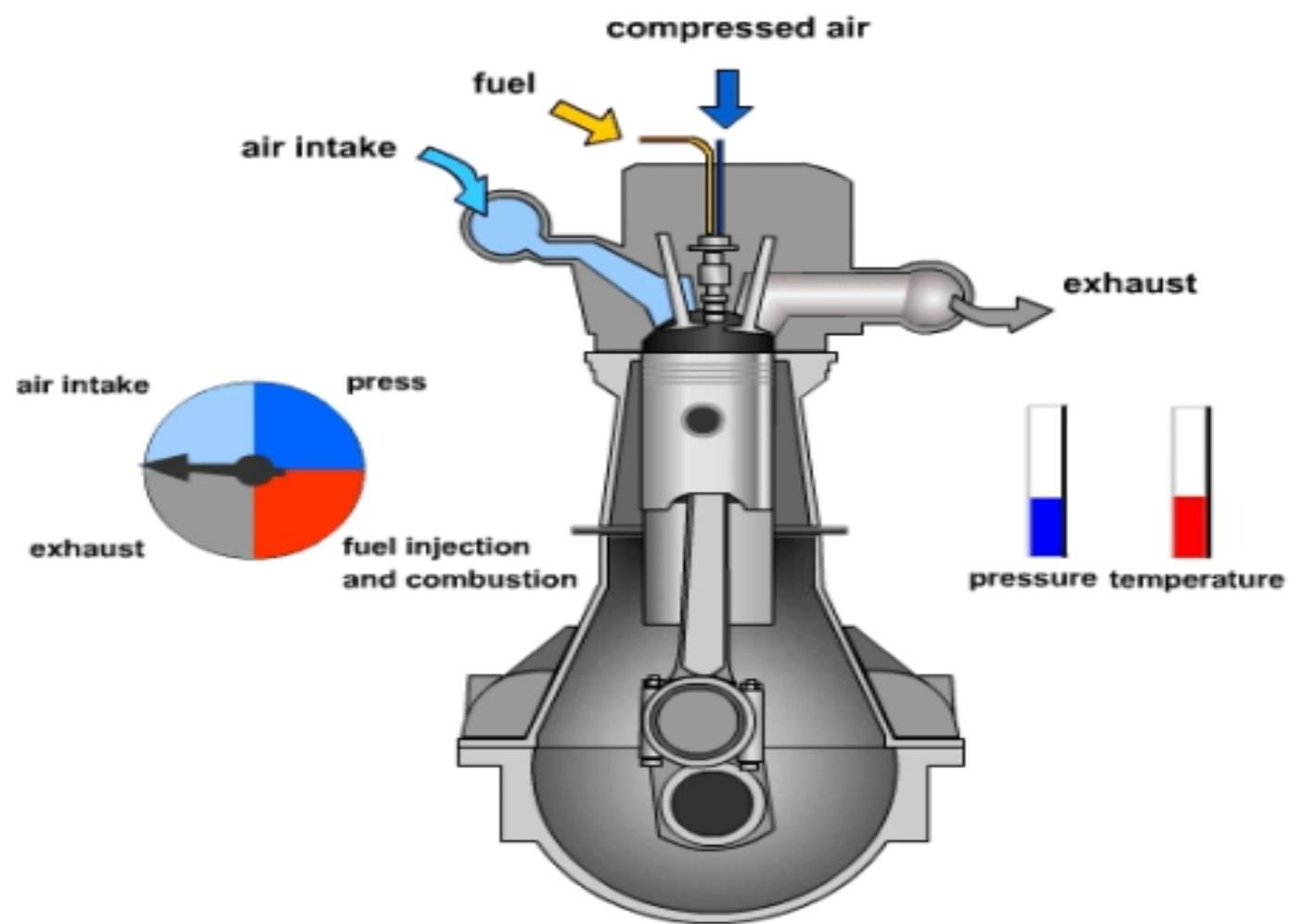
# P-V Graph of Diesel Engine



P-V Graph of Diesel Engine

# Diesel

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# 4 Stroke Petrol Engine

