

DIESEL HAMMER

Since the early 1960's, Frank's has stocked a complete range of Delmag diesel hammers from D12 through D100. The Delmag hammer delivers superior engineering, efficiency, quality and performance along with many other outstanding features:

- Self-contained mechanism requires no external power supply
- Air-cooled
- Adaptable and efficient in all climates
- Highest energy/weight ratio of any hammer available
- Adjustable energy controls
- Fuel efficient
- Easy to operate, usually requiring only two operators
- Extremely mobile

Frank's Engineering Division has further improved the reliability and efficiency of its Hammer Operations by custom designing several improvements to the diesel hammer, including hydraulic/remotely controlled fuel pumps and tripping devices.

The hydraulic/remotely controlled fuel pump gives the operator maximum control over the amount of energy actually delivered by the hammer and allows instantaneous shut down of the hammer.

The hydraulic/remotely controlled tripping device reduces damage to the pile often caused by manually tripping the hammer, especially during battered pile operations.



Diesel Hammer Operation:

Starting the Hammer (1)

The hammer's tripping device raises the ram weight (piston) and automatically releases it at a given height.

Diesel Fuel Injection and Compression (2)

The ram weight's descent actuates the pump lever which injects a specific quantity of diesel fuel onto the surface of the impact block. Once past the exhaust ports, the piston will begin compressing the air in the cylinder chamber. The increasing compression presses the impact block and pile helmet firmly onto the pile head.

Impact and Explosion (3)

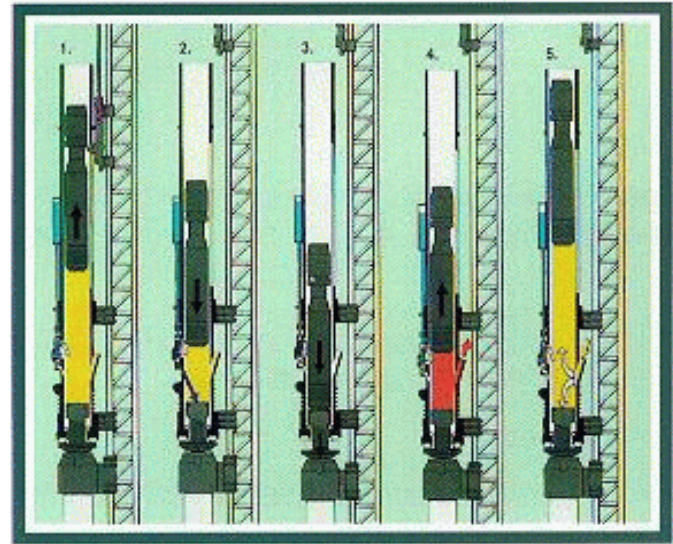
The fuel is atomized by the force of the piston on the impact block and ignites in the highly compressed air. The resulting explosion forces the piston back up the cylinder.

Exhaust (4)

The exhaust gases escape through the ports which are exposed on the piston's ascent. The pressure in the cylinder is equalized by the exhaust.

Scavenging (5)

As the piston continues to ascend, fresh air is sucked in through the exhaust ports, thoroughly scavenging the cylinder and thereby releasing the pump lever. The pump lever return to its original position sucking again diesel oil into the fuel pump.



Diesel Hammer Specifications:

	ENERGY (ft/lbs)	RAM WEIGHT W_R (lbs)	HAMMER WEIGHT W_H (lbs)	LEAD WEIGHT (lbs)	TOTAL WEIGHT (lbs)	LENGTH WITH LEAD (ft)	SLING LENGTH (ft)	BLOWS PER MIN.
D12	22,500	2,750	6,050	3,450	9,500	18'4"	15'	42-60
D15	27,100	3,300	6,600	4,200	10,800	18'4"	15'	40-60
D22-02	24,000-48,500	4,850	11,400	6,050	17,450	22'	13'	38-54
D30-02	33,700-66,100	6,600	13,150	8,000	21,150	23'	13'	38-54
D36-02	38,800-83,100	7,900	17,750	8,000	25,750	23'	15'	37-53
D46-02	48,400-105,000	10,120	19,900	8,000	27,900	23'	15'	37-53
D55	62,500-117,000	12,100	26,300	11,000	37,300	23'	15'	36-47
D62-02	78,000-162,000	14,000	27,900	11,000	38,900	23'	15'	35-50
D80	98,000-225,000	19,500	44,000	14,000	54,800	28'	15'	35-50
D100	157,743-300,000	23,612	47,500	14,000	61,500	28'	15'	35-50