

# Martillo Diesel ICE Modelo 30S



983-285-955



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Mz.B Lt.32 A.P.V. Virgen de Guadalupe SMP

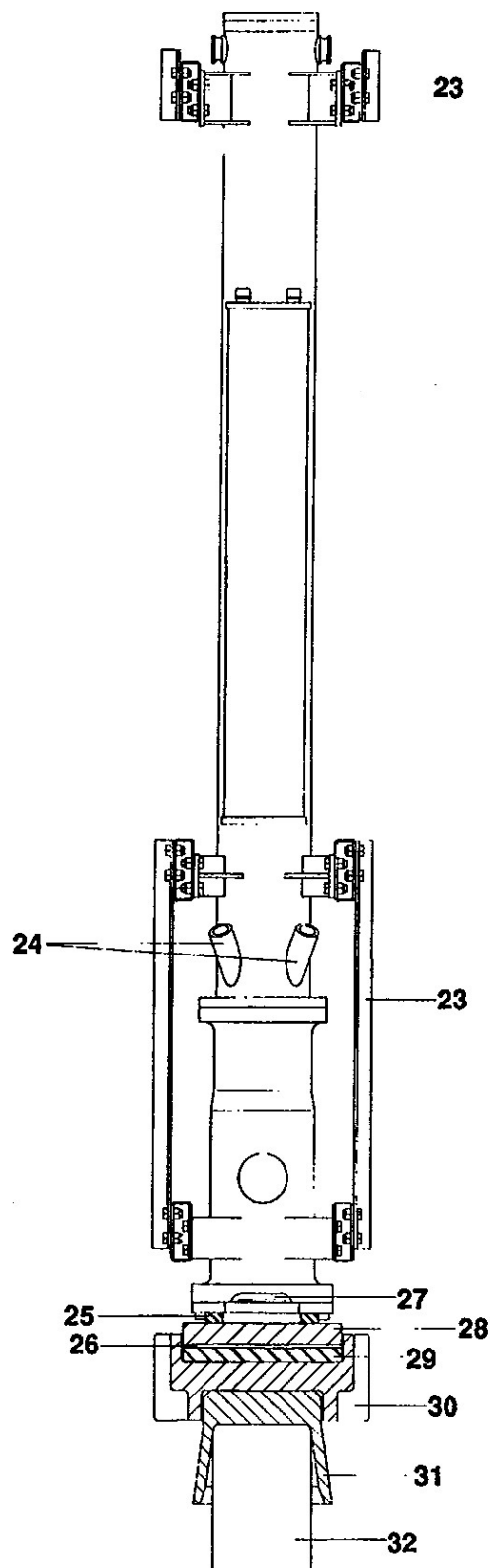
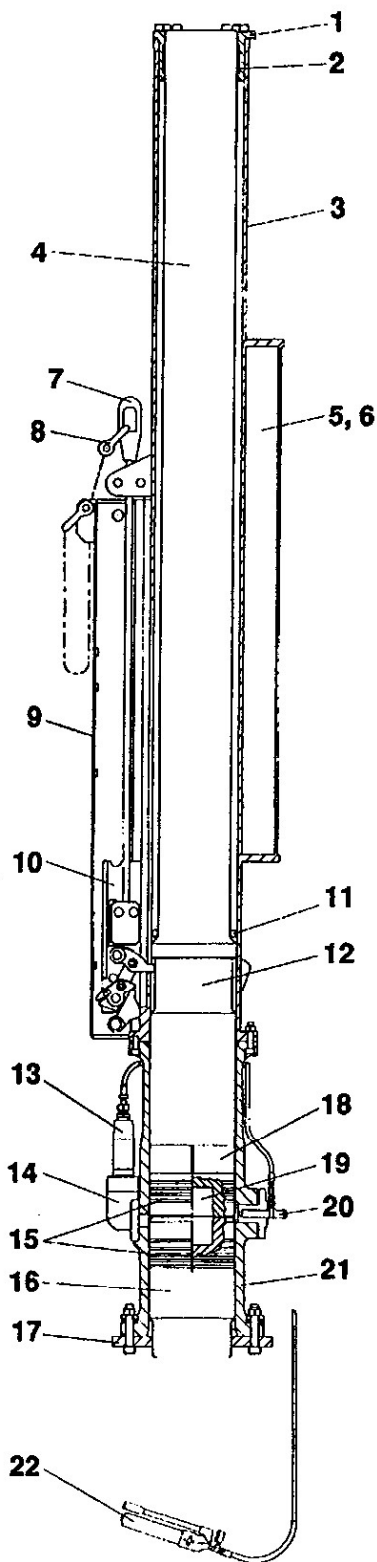


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## II. GENERAL INFORMATION

### A. MAJOR COMPONENTS

1. Ram retaining ring
2. Upper ram bearing
3. Upper cylinder
4. Ram
5. Lube oil tank
6. Fuel tank
7. Starting rope
8. Lifting chain
9. Starting device cover
10. Starting device
11. Ram bumper
12. Lifting groove
13. Fuel pump
14. Lube oil pump
15. Compression rings
16. Anvil
17. Anvil retainer
18. Lower ram bearing
19. Combustion chamber
20. Fuel injector
21. Lower cylinder
22. Throttle control
23. Lead guides
24. Intake/exhaust ports
25. Recoil dampener
26. Aluminum plate
27. Wire rope
28. Striker plate
29. Cushion material
30. Drive cap base
31. Drive cap insert
32. Pile



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## C. SPECIFICATIONS

### Working Specifications

Rated energy .....	22,500 ft-lbs (3,111 kg-m)
Minimum energy .....	9,000 ft-lbs (1,244 kg-m)
Stroke at rated energy .....	7' 6" (2.29 m)
Maximum obtainable stroke .....	7' 8" (2.34 m)
Speed (blows per minute) .....	44-67
Bearing based on EN formula .....	112 tons (102 tonnes)

### Weights

Bare hammer .....	6,250 lbs (2,835 kg)
Ram .....	3,000 lbs (1,361 kg)
Anvil .....	575 lbs (260 kg)
Typical operating weight .....	7,340 lbs (3,330 kg)

### Capacities (adequate for normal day)

Diesel fuel tank .....	9 gal (34 l)
Lube oil tank .....	4 gal (15 l)

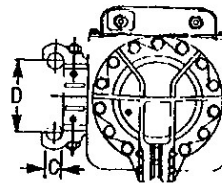
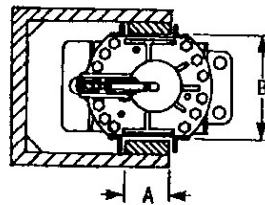
### Dimensions of Hammer

Width (side to side) .....	20" (508 mm)
Depth .....	29" (737 mm)
Centerline to front .....	13 3/4" (350 mm)
Centerline to rear .....	15 1/4" (387 mm)
Length (hammer only) .....	12' 4" (3,760 mm)
Operating length (top of ram at maximum stroke to pile driving surface of cap)	21' 2" (6,450 mm)

### Dimensions of Leads (see Note)

Face width of guide rails (A) .....	4 or 8" (100 or 200 mm)
Distance between guide rails (B) .....	20 1/2-26 1/2" (520-670 mm)
Diameter of pipe guides (C) .....	2 3/4" (70 mm)
Center to center of pipe guide (D) .....	13" (330 mm)

Note: Pads for wider leads, guide angles for other width leads and guide clips for spud-type leads are available



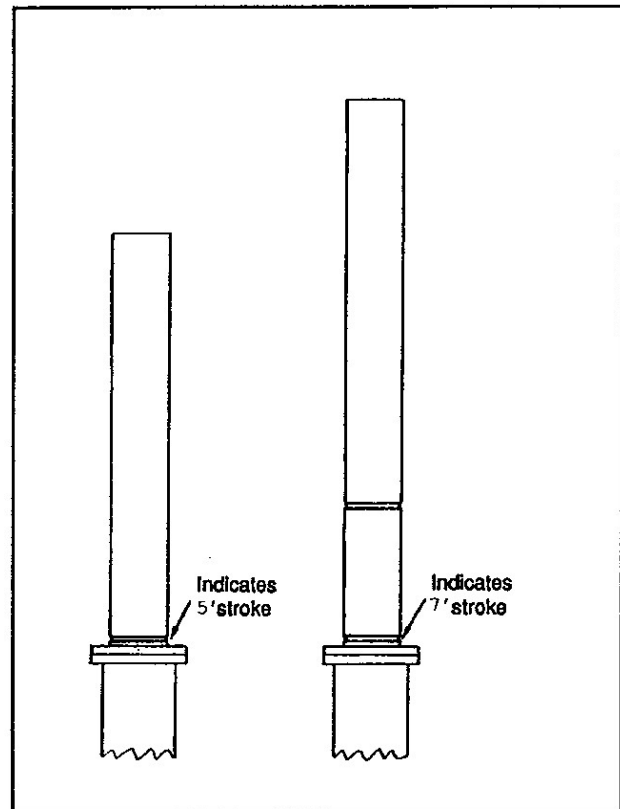
## 2. Rated hammer energy

Rated hammer energy of 22,500 ft-lbs (3,111 kg-m) is achieved at an operating stroke of 7' 6" (2.29 m). Minimum operating energy of 9,000 ft-lbs (1,244 kg-m) occurs at an operating stroke of 4' (1.22 m). Maximum obtainable stroke is 7' 8" (2.34 m).

## 3. Determining hammer energy

The energy at which the hammer is operating may be determined by measuring the operating stroke and multiplying the stroke by the weight of the ram (3,000 lbs) to get energy in ft-lbs. The ram is marked at the 5' and 7' stroke positions with yellow bands. The operating energy can also be determined by counting the blows per minute and referring to the table below.

Blows per minute	Operating stroke	Operating energy
43.8	7.50'	22,500 ft-lbs
44	7.42	22,260
45	7.07	21,210
46	6.76	20,280
47	6.47	19,410
48	6.20	18,600
49	5.93	17,790
50	5.68	17,040
51	5.44	16,320
52	5.22	15,660
53	5.02	15,060
54	4.82	14,460
55	4.63	13,890
56	4.46	13,380
57	4.27	12,810
58	4.15	12,450
59	4.00	12,000
60	3.85	11,550
61	3.70	11,100



## 4. Maximum blows per inch

Driving in excess of 10 blows per inch is considered practical refusal. **Driving in excess of 10 blows per inch for more than 6" of driving or driving in excess of 20 blows per inch at all is considered improper use and will void the hammer warranty.**

## 5. Hammer "racking"

The term "rack" is commonly used by pile driving personnel to describe bounce or jumping of a pile hammer. Rack is caused by allowing the ram to rise too far thereby causing the entire hammer to jump off the pile.

**Damage can result if the hammer is allowed to rack on the pile while in operation. There is also danger to personnel should parts of the hammer come loose and fall.**

If the hammer begins to rack, the operator should immediately reduce the throttle setting until the hammer runs without jumping.



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