



## MODEL D60/72-1.5M MICHAEL BYRNE EXTREME HEAVY COMBINATION BORING AND JACKING MACHINE

Michael Byrne Manufacturing Co, Inc.




Our gear drives don't just start bore jobs,  
or get stuck, our gear drives finish Bores!

Michael Byrne Manufacturing is now offering the most powerful 60" horizontal-boring machine in the industry. The D60-1.5 like all of our machines is designed for the severest duty imaginable. With over 1,500,000 lbs. of thrust and 220,000 ft-lbs. of torque the D60/72 is the most powerful in its class.

Our machine uses a 250 HP CAT/John Deere 6 cylinder engine coupled to a 5-speed transmission and the exclusive Michael Byrne Manufacturing planetary gearbox. The axial piston pump supplies 54 Gpm to four hydraulic cylinders with a max pressure of 5,800PSI. This pump also supplies the oil for the push block and optional winch or auger pull system.

Our tracks are connected together by heavy duty quick-disconnect track connectors. Michael Byrne designed heavy box constructed frames, for severe conditions to keep proper alignment for successful bores. This machine is a split base design for easy lifting in and out of pits.

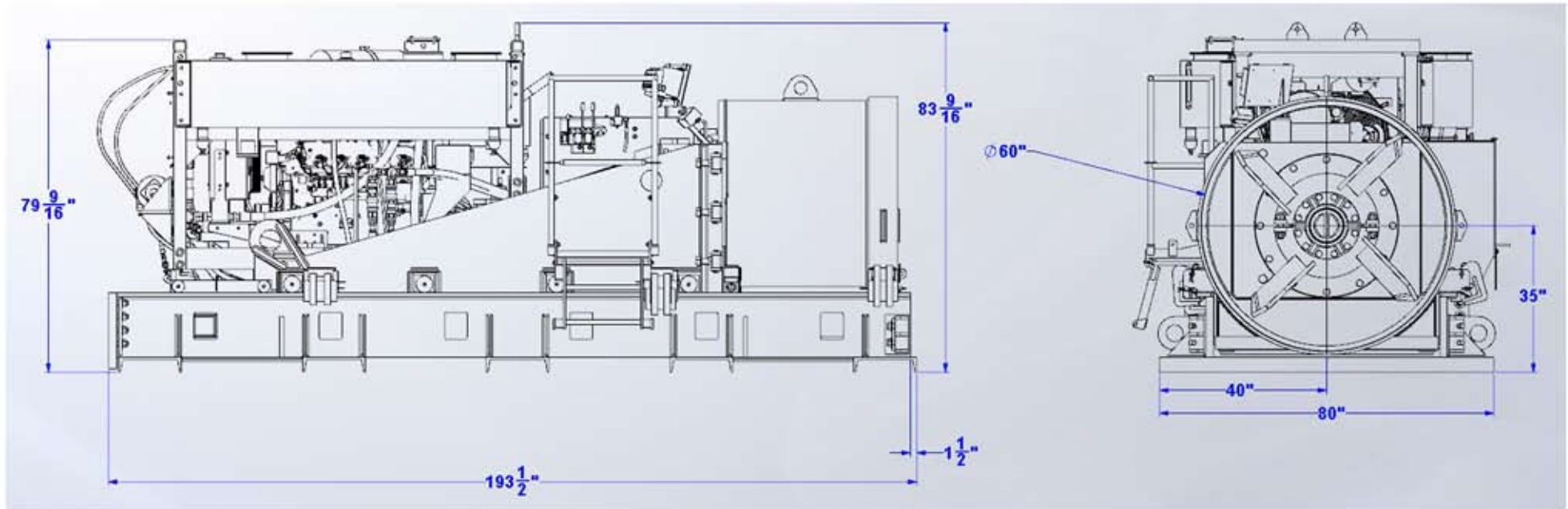
 Michael Byrne Machines meet the European CE standard for Auger Boring Machines.

Byrne B-Series Gear Drives. Gear Drives for the auger boring industry. Our gear drives don't just start bore jobs, or get stuck, our gear drives finish Bores!

Dual or Triple Planetary Drives with ratios of 47:1 to 51:1. Dual Thrust bearings for the push and pull capacities required for boring.

The Byrne output shaft is positively locked, and not held in by locknuts or retaining rings, like many of the competitions gear drives, thus the output shaft cannot be pulled out of housing. Dual thrust bearing and radial ball bearings handle thrust in both directions and isolates gear drive from external loads. All B-series gear drives is also a simple planetary design, with 95% efficiency. Competitors often use a wheel drive differential planetary gearboxes which are only about 83% efficient and use timed gears. Planet Carriers have forged alloy steel hub splines with courser teeth to handle extreme shock loads of boring.

# MODEL D60/72-1.5M MICHAEL BYRNE EXTREME HEAVY DUTY BORING AND JACKING MACHINE



## Power Train System

Engine: CAT/John Deere 250 HP (186.4 Kw) Water Cooled Tier III or Tier IV

**Fuel Capacity:** 62 U.S. Gallons (234.7 liters)

## TRANSMISSION: Eaton Fuller

### RATIOS

1st Gear	7.52:1
2nd Gear	4.35:1
3rd Gear	2.54:1
4th Gear	1.52:1
5th Gear	1.00:1
Reverse	6.27:1

**Planetary Gearbox Ratio** 51.44 : 1 B-16

**Auger Drive:** 5" Hex (12.7 cm)

**Working Range:** 24" to 72" (60.1 cm to 182.9 cm) Earth Boring ; Pipe Jacking

## Machine Torque and Speed Max

1st Gear	219,326 Ft-Lbs (2,172,837 In-Lbs)	(2,946,219 Nm), 6.20 RPM
2nd Gear	126,871 Ft-Lbs (1,256,678 In-Lbs)	(1,703,970 Nm), 10.72 RPM
3rd Gear	74,081 Ft-Lbs ( 733,747 In-Lbs)	(994,911 Nm), 18.36 RPM
4th Gear	44,331 Ft-Lbs ( 438,957 In-Lbs)	(595,195 Nm), 30.69 RPM
5th Gear	29,165 Ft-Lbs ( 288,780 In-Lbs)	(391,566 Nm), 46.65 RPM
Reverse	182,869 Ft-Lbs (1,810,698 In-Lbs)	(2,455,183 Nm), 7.44 RPM

## Hydraulic System

Pressure 5800 PSI (400 Bar)  
 Pump Type Axial Piston with Load Sensing  
 Gallon per Minute 54 GPM (204.4 Liters)  
 Cylinders Four 9" (22.86 cm) Bore x 36" (91.44 cm) Stroke  
**4 Cyl Max Thrust 1,507,000 Lbs (6,703,437 N) / 2 Cyl Max Thrust 753,500 Lbs (3,351,718 N)**

Suction Strainer 100 Mesh Screen  
 Pressure Filter 10 Micron Replaceable Element  
 Return Filter 10 Micron Replaceable Element  
 Heavy-Duty Hydraulic Oil Cooler

## Weights (Approx.)

Bottom Base Assembly  
 Top Base Assembly  
 Master Ring Assembly  
 Master Track

## Dimensions

12,670 Lbs.	Centerline of Bore to Bottom of Track	35"
13,500 Lbs.	Machine Height	86"
3,230 Lbs.	Machine Width	80"
5,520 Lbs.	Base Track Length	15' 2"
	Extra Track Length	20'

## Weights (Approx.)

Bottom Base Assembly  
 Top Base Assembly  
 Master Ring Assembly  
 Master Track

## Dimensions

5,740 Kg.	Centerline of Bore to Bottom of Track	88.9 cm
6,123 Kg.	Machine Height	218.44 cm
1,465 Kg.	Machine Width	203.2 cm
2,503 Lbs.	Base Track Length	4.62 m
	Extra Track Length	6.1 m