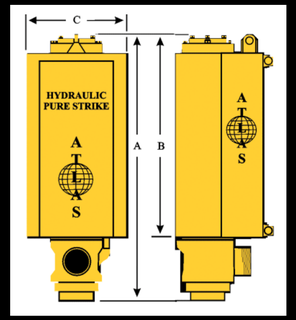

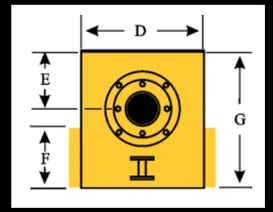

THE LEADER IN CASING DRIVER TECHNOLOGY

Atlas Casing Driver Specifications

Specifications	DT500	R-1000	R-2000	R-3000	R-4000	R-5000	R-6000
Ram Weight	450 lbs.	600 lbs.	1,100 lbs.	1,100 lbs.	1,600 lbs.	1,600 lbs.	2,000 lbs.
Driving Energy	2000 ft. lbs.	3100 ft. lbs.	4100 ft. lbs.	5800 ft. lbs.	7850 ft. lbs.	7850 ft. lbs.	9200 ft. lbs.
Drive Anvil	4" & 6"	6", 8" & 10"	6", 8" & 10"	6", 8" & 10"	6", 8" & 10"	8", 10" & 12"	8", 10" & 12"
Overall Weight	1,070 lbs.	2,200 lbs.	3,200 lbs.	3,500 lbs.	4,180 lbs.	4,750 lbs.	5,150 lbs.
Hydraulic Requirements	15 gpm @ 2,000 psi*	20 gpm @ 2,000 psi*	20 gpm @ 2,000 psi*	25 gpm @ 2,000 psi*	25 gpm @ 2,000 psi*	25-30 gpm @ 2,000 psi*	25-30 gpm @ 2,000 psi*
Beats/Minute	0-120 variable	0-100 variable	0-100 variable	0-70 variable	0-70 variable	0-70 variable	0-70 variable
A	58"	55"	65"	76"	86"	90½"	90½"
B	47"	40"	50"	61½"	71½"	73¼"	73¼"
C	14½"	19"	23"	21"	21"	21"	21"
D	14½"	19"	19"	19"	19"	21"	21"
E	5½"	6¼"	6¼"	6¼"	6¼"	8"	8"
F	N/A	N/A	9½"	10½"	N/A	N/A	N/A
G	16½"	21"	21"	25"	25"	28"	28"

All models can be ordered with 6" Internal Driving surface removed for a nominal charge.
R5000 & R6000 come with the larger Stock Drive Anvil. Drive adapters are also available upon request.
The DT500 comes with a 5" male pipe threaded discharge. (*approx.)

Air driven (pneumatic) casing drivers require large amounts of compressed air; many use 300-400 CFM. Mobile air is expensive to make and compressors expensive to maintain. Most pneumatic casing drivers regularly require rebuilding or cylinders, valves and timing mechanisms. Pneumatic casing drivers loudly exhaust air, water and oil which pollutes the atmosphere around the drill site, coating everything with a layer of grime. Atlas casing drivers have no air exhaust. They run quieter and cleaner. They have no valves, cylinders or troublesome timing mechanisms to maintain.

"Hydralic systems are significantly more efficient than air systems in the conversion of motor/engine energy to usable energy, and therefore energy consumption can be reduced by 60 to 70 percent, providing fuel or power cost savings".
Air Power USA
Reference: Air Drilling Handbook

ATLAS
Manufacturing Ltd.

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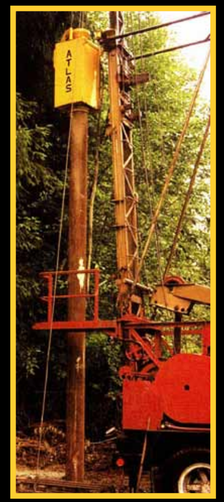


In addition to top head rotary casing drivers Atlas Manufacturing also produces a Hydraulic Cable Tool Casing Driver and Accessory Package.

Drive casing while drilling.

Hydraulically powered from deck engine.
No air compressor or trailer mounted equipment needed.

Elevated drilling platform & swing arm allows use of 20' casing lengths.

Inject water through the casing driver.

Quickly swing the casing driver and tools out of the way for bailing.

Casing driver safely and easily handled by casing line with patented sheave assembly.

Casing driver transports on rig's mast.

Call us for more information and a free video tape.

Designed By Drillers FOR Drillers!

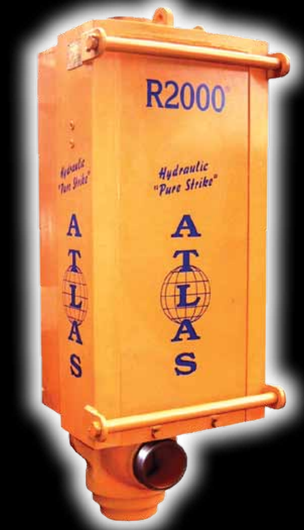
U.S. Patent #6029757

Power Swing out moves hammer away from drill area.

ATLAS

Yellow Jack-It Casing Jacks

Atlas R6000 Casing hammer in swung out position.



Atlas Cable Tool

Atlas Casing Hammer on a Power Swing Out system mounted on Schramm T90XD Rig.

Atlas R6000 on GEFCO 50K Rig.

Complete with Atlas Hammer, Lifting Cylinder, Swing Jib and 250 Ton Casing Jack installed at the Atlas Factory.

www.casingdriver.com

The Atlas PURE STRIKE casing driver is 100% hydraulically activated. This means that all your rig's air is available for down hole drilling. Hydraulic power also insures that the Atlas casing driver is extremely reliable, eliminating the typical problems of pneumatic casing drivers. Owning the Atlas casing driver means:

- No freeze-ups in low temperatures
- No maintaining lubricators, air regulators & valves
- No repairing air cylinders & pistons

Atlas Casing Drivers feature rugged, long life top seals that really work! No adjustment, just bolt in place and drill!

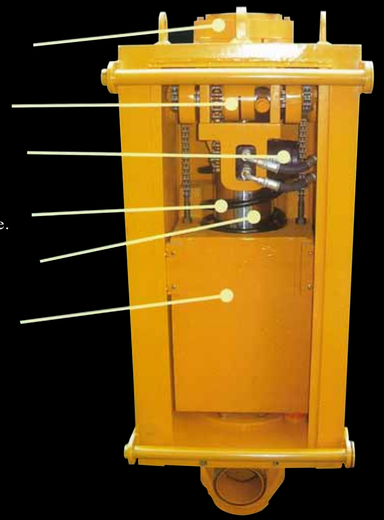
Eccentric camshaft rotated by hydraulic motor raises ram

Driving power is delivered by a standard hydraulic motor. A common flow control valve mounted on the driller's control panel allows complete frequency control

Huge coil spring provides additional downward driving force. Spring is engineered to last many years of continual use

Hard Chrome heavy duty center tube, (6-1/4" ID) ID to provide long life and reliability

Heat treated cast alloy ram, awesome driving energy when you need it



NO CYLINDERS
NO VALVES
NO FREEZING
USE ALL YOUR AIR FOR DRILLING

Top and bottom roller, protects cables from damage

Internal center tube seal, extra heavy, keeps cuttings from the inside of the case

Discharge anvil, open area that allows free flow without up-hole restriction on 4-1/2" drill rod. Features a 6" standard male pipe threaded spout which allows installation of quick disconnect or barbed fitting for discharge hose

Discharge anvil, machined to accept 6", 8" & 10" casing without the need of a drive adaptor

U.S.Patent #6029757

DRILLING WITH AN ATLAS CASING DRIVER

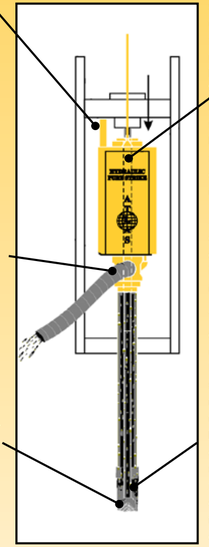
When marketing to those considering a casing driver for the first time we have found an underlying apprehension and doubt. Two months after the sale we find that the same driller is the best endorsement of our product.

The addition of a reliable and powerful casing driver opens up new geographical areas for a drilling company to operate. Discover what drilling companies in glaciated areas have known for decades--Drill and Drive!

Many drillers weld a "stop" to the top of their casing driver to keep the top head from hitting the top seal of the casing driver.

A standard 6" "suction hose" can be used as a discharge hose to direct cuttings away from the operator or helper. Atlas Casing Drivers have a 6" male pipe thread on the discharge spout to make it easy to use a quick disconnect or barbed fitting.

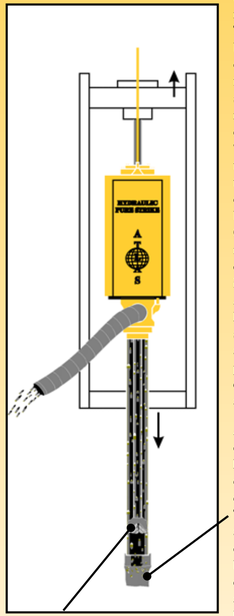
Down hole hammers or roller bits can be used with a casing driver. Larger boulders can be drilled with an under reamer to allow passage of the casing.



A "drill sub" made of the same diameter pipe as your drill steel is fabricated to a maximum length that will allow you to make up 20' of drill steel below the casing driver. The "drill sub" should have a smooth outer surface and a leading bevel on the bottom to allow easy penetration of the casing driver's top seal.

Atlas top seals are a one piece "flexible cone" seal that is bolted into place with no need to adjust or tighten.

When drilling the casing driver is normally at rest. Drilling can continue ahead of the drive shoe until the hole becomes unstable or the top head reaches the top of the casing driver (as shown). In certain formations drilling and driving at the same time is possible. When coming into contact with heaving sands and gravel, you are able to drive the casing ahead, maintaining control of the hole. Atlas hydraulic casing drivers can be used in these difficult situations without robbing the down-hole drilling air, providing safer and faster penetration rates.



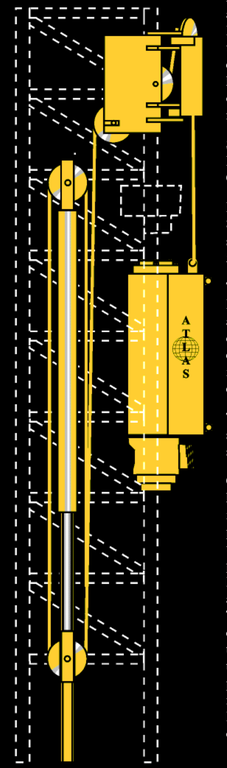
Driving casing when drilling in unconsolidated formations keeps the hole from caving while sealing the borehole from air loss. Up-hole velocities and cuttings removal are greatly increased. The casing also keeps the volume of cuttings lower.

When driving casing the bit is normally raised into the casing. This prevents the drill bit from being jammed or wedged into the formation by the drive shoe. Some formations require aggressive driving, some a lighter "feel". It is important to have a casing driver that provides positive driving control over a broad range of speeds. On occasion it may be necessary to "tap" the casing to determine its resistance. The Atlas casing driver has complete variable speed control. It is also able to produce a partial blow making it easy to "feel" your way along.

Altlas hydraulic casing drivers allow you to keep all your air going down-hole while driving the casing. There is no need to rob air to run the casing driver. This provides better clearing of the cuttings when driving and helps keep the hole open in difficult formations.

ATLAS
Manufacturing Ltd.

LIFT & HANDLING SYSTEMS



Atlas manufactures a quality line of lifting accessories which enable you to efficiently and safely handle casing drivers on most top head air rotaries.

SWING JIB & HYDRAULIC LIFT CYLINDER

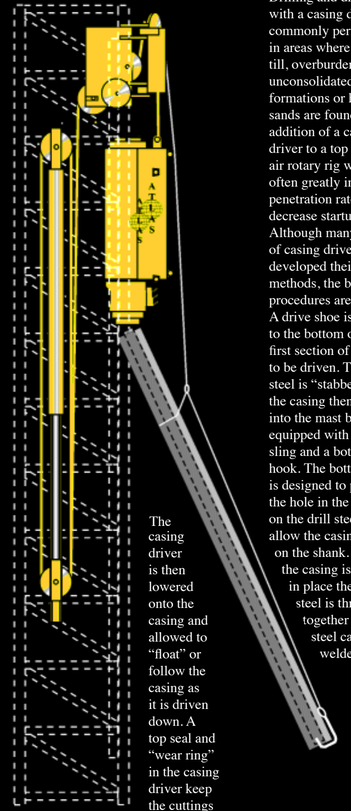
Both components have 8" steel sheaves with sealed bearings running 5/8" wire rope.

The rugged hydraulic lift cylinder features a 5" bore with 2-1/2" diameter rod. The rod end sheave block runs in a track to provide extra rigidity.

The swing jib has sealed bearings in the swing joint.

Control of the hydraulic lift cylinder is provided by a pressure relieved spool valve. The valve's positions are: raise, lower, detented hang, and detented "float". The valve's pressure can be set to relieve if the rig's top head hits the casing driver. This provides a safe lifting mechanism that is long lived and easy to operate.

DRILLING WITH AN ATLAS CASING DRIVER



Drilling and driving with a casing driver is commonly performed in areas where glacial till, overburden, unconsolidated formations or heaving sands are found. The addition of a casing driver to a top head air rotary rig will often greatly increase penetration rates and decrease startup time. Although many users of casing drivers have developed their own methods, the basic procedures are simple. A drive shoe is welded to the bottom of the first section of casing to be driven. The drill steel is "stabbed" into the casing then raised into the mast by a line equipped with a upper sling and a bottom hook. The bottom hook is designed to penetrate the hole in the pin end on the drill steel and allow the casing to rest on the shank. Once the casing is lifted in place the drill steel is threaded together then the steel casing is welded.

The casing driver is then lowered onto the casing and allowed to "float" or follow the casing as it is driven down. A top seal and "wear ring" in the casing driver keep the cuttings from exiting the top, directing all the air and cutting through the discharge spout. A discharge hose can be attached to the discharge spout to direct the cuttings.

U.S.Patent #6029757