



The **George E. Failing Company**

2215 S. Van Buren P.O. Box 872 Enid, Oklahoma 73702 Phone 405/234-4141

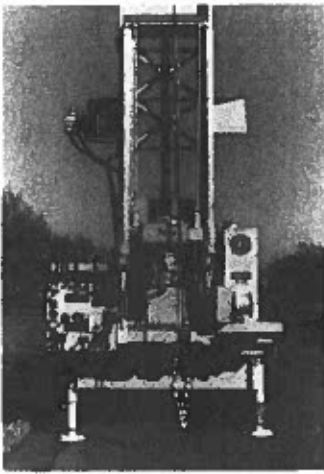


Our F-6 offers contractors a wide range of capabilities and features. The rig is powered by a 100 HP diesel engine and delivers 11,700 ft. lbs. of torque to the spindle. Maximum speed for the 5¼" bore hollow spindle is 500 RPM. The tophead drive has a stroke of 6'6" (78") to facilitate making connections. The F-6 also has angle drilling capabilities. A large selection of auxiliary components is offered to custom fit each unit to a customer's needs.

Designed for auger drilling for the expanding monitoring well market, the new rig is also suitable for foundation investigation, soil sampling, rock coring as well as water well production. The F-6 was designed with versatility as a key benefit.

F-6 **TOP DRIVE**

Call Toll Free:
1-800-654-5117
wait for tone and dial 7447
In Oklahoma:
1-800-522-4140
wait for tone and dial 7447
FAX: 405/233-6807



The basic low profile unit can be mounted on a single rear axle truck. Tandem axle trucks are required if the F-6 is equipped with a large variable speed duplex pump. Modern air controls, instrumentation and remote hydraulic controls are grouped in a convenient control panel to minimize the labor for the operator.

Standard 6½ foot stroke

The Power

is supplied by a Cummins diesel Model 4BT3.9P power unit with a capacity of 100 HP and 260 ft. lbs. of torque. The F-6 features remote electrical start, turbo charge, muffler, instrument panel, safety shutdown devices and a 7.5 CFM compressor. The following torque chart and speed chart depict the Model F-6's performance based on this power unit:

TORQUE CHART

(Based on 1600 rpm)

6th Gear - 320 rpm - 1278 ft. lbs.
 5th Gear - 234 rpm - 1749 ft. lbs.
 4th Gear - 156 rpm - 2624 ft. lbs.
 3rd Gear - 99 rpm - 4136 ft. lbs.
 2nd Gear - 60 rpm - 6825 ft. lbs.
 1st Gear - 35 rpm - 11,700 ft. lbs.

SPEED CHART

(Based on 2500 rpm)

6th Gear - 500 rpm
 5th Gear - 367 rpm
 4th Gear - 245 rpm
 3rd Gear - 155 rpm
 2nd Gear - 94 rpm
 1st Gear - 55 rpm

The Transmission

is an Eaton-Fuller 6-speed transmission, Model FS-5106A, computer designed, constant mesh helical gearing and tapered roller bearings. The transmission provides a choice of six forward speeds and one reverse speed to the rotary drive, the cathead and the GEFCO sample driver hoist. Complete with heavy-duty clutch and controls at the driller's station.

The Kelly Drive

is heat treated alloy steel 2½" square drive bar mounted on anti-friction bearings.

The Top Drive

is fully enclosed chain drive with 1" pitch, triple strand chain in oil bath lubrication. Spindle opening is 5¼". The top drive has a travel of 6'6" which facilitates making connection. The spindle can easily be turned after disengaging the rotary clutch.

Slide & Retract

Heavy duty 4" diameter hydraulic cylinders with 2" chrome plated piston rods to supply 18" of fore and aft movement and 6" left and right movement off the centerline for above drill frame.

Hydraulic Hoist

Two double-acting hydraulic hoisting-pulldown cylinders mounted directly to the top drive and supported by the mast. Effective stroke 78" with hydraulic hoisting force of 30,000 lbs. and a pulldown force of 20,000 lbs. Hoisting speeds up to 50 fpm and downspeeds up to 75 fpm based on 65 gpm.

The Control Panel

is laid out, utilizing the latest modern design air controls and remote controls for all hydraulic functions. The controls are grouped together, with necessary gauges, to simplify operation. All controls can be reached while standing on ground level.

Hydraulic Circuit

Low pressure hydraulic circuitry with three valve banks located on the machine in a way to minimize necessary piping. Complete with a large volume hydraulic tank and in-tank return line filtration. Pressure compensated design automatically maintains constant selected down pressure (pulldown). Complete with precise holdback weight control for optimum drilling.

OPTIONS

Mast Extensions

A 20' extension is available for the operation of 15' kelly and 10' drillpipe. A 25' extension is available for the operation of 20' kelly and 15' drillpipe. A 30' extension is available for the operation of 25' kelly and 20' drillpipe.

Cat Head

Mechanically driven air clutch control cathead with 8" drum diameter. Maximum single line pull 3,000 lbs., with speeds up to 600 rpm at 1600 rpm engine speed. The cathead is mounted in such a way that operation is handled from the rear of the drill unit. The cathead may also be used as a sample driver hoist, utilizing a wireline rather than a rope.

Mud Pumps

Failing Model FM-45 5" x 6¼" duplex pump.
 Failing Model L-100 4" x 5" duplex pump

Moyno Pumps

Moyno Model 3L6 with variable speed hydraulic drive delivers 30 gpm up to 225 psi or 40 gpm up to 150 psi. Moyno Model 4E0ES1 with hydrostatic variable speed drive, delivers 75 gpm up to 300 psi.

Centrifugal Pump

Hydraulic driven 2" x 3" centrifugal pump complete with controls at the driller's station.

Hydraulic Jacks

Two hydraulic jacks with mounting beam for the rear of the drill frame. 4" piston diameters and 21" stroke. One front hydraulic jack with a 4" piston diameter and a stroke of 38". Controls are at the driller's station.

Breakout Cylinder

Hydraulic cylinder with 4" piston and 24" stroke mounted and complete with wireline and heavy-duty breakout wrench.

Swinging Spider

Heavy-duty split-swinging-spider mounted to sub-frame with dual pipe support. The spider will support up to 5,000 lbs. of inner pipe in the retract position or up to 10,000 lbs. of drillpipe during coring or water well drilling. Various sizes of tapered slips are available.

Winch

Hydraulic winch with maximum 10,000 lbs. single line pull bare drum capacity, complete with spring applied, hydraulically released brake and controls at the driller's station. (Not shown).

Hydraulic winch with maximum 7,500 lbs. single line pull bare drum capacity, complete with spring applied, hydraulically released brake and controls at the driller's station.

Hydraulic winch with maximum 2,500 lbs. single line pull bare drum capacity, complete with spring applied, hydraulically release brake and controls at the driller's station.

Water Tank

Heavy gauge sheet metal 200 gallon capacity water tank with 8" storage compartment. Equipped with a large fill opening, a full height sight glass, two 2" valves and a large drain plug. Also available: 300 gallon water tank with comparable storage compartment.

Other Options

- 25' mast extensions
- 30' mast extensions
- Crown block assemblies
- Stacking ring
- Catline sheave
- Discharge Piping
- Frame extension
- Sub-frame extension
- Flowline (for Moyno pump).
- Primer Assembly
- Hinged front bumper (Jack mount)
- Mechanical Jacks
- Sample driver hoist (3,000 lbs. single line pull)
- Sample driver hoist (Mobile safety driver hoist)
- Core Extruder (3" x 38" stroke hydraulic cylinder)

F-6



The Failing Model F-6 offers contractors a wide range of capabilities and features. The rig is powered by a 100 HP diesel engine and delivers 11,700 ft. lbs. of torque to the spindle. Maximum speed for the 5-1/4" bore hollow spindle is 500 RPM. The tophead drive has a stroke of 66" (78") to facilitate making connections. The F-6 also has angle drilling capabilities. A large selection of auxiliary components is offered to custom fit each unit to a customer's needs.

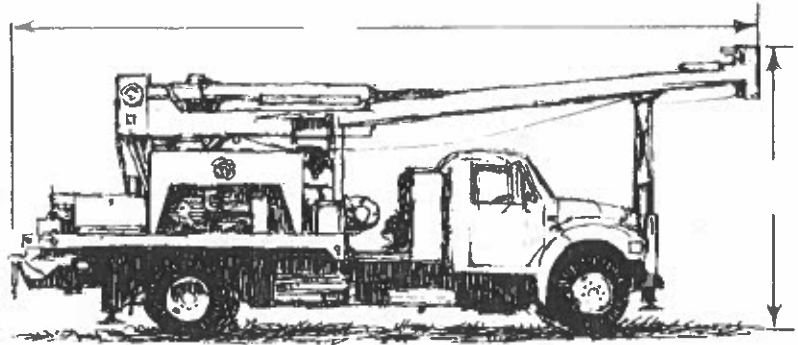


The
George E. Failing Company

Manufacturers of Failing-Speedstar Drilling Equipment

The basic low profile unit can be mounted on a single rear axle truck. Tandem axle trucks are required if the F-6 is equipped with a large variable speed duplex pump. Modern air controls, instrumentation and remote hydraulic controls are grouped in a convenient control panel to minimize the labor for the operator.

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F-6		Standard 6 1/2 foot stroke
The Power	is supplied by a Cummins diesel Model 4BT3 9P power unit with a capacity of 100 HP and 260 ft. lbs. of torque. The F-6 features remote electrical start, turbo charge, muffler, instrument panel, safety shutdown devices and a 7.5 CFM compressor. The following torque chart and speed chart depict the Model F-6's performance based on this power unit.	
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The Transmission	is an Eaton-Fuller 6-speed transmission, Model FS-5106A, computer designed, constant mesh helical gearing and tapered roller bearings. The transmission provides a choice of six forward speeds and one reverse speed to the rotary drive, the cathead and the GEFCO sample driver hoist. Complete with heavy-duty clutch and controls at the driller's station.	
The Kelly Drive	is heat treated alloy steel 2-1/2" square drive bar mounted on anti-friction bearings.	
The Top Drive	is fully enclosed chain drive with 1" pitch, triple strand chain in oil bath lubrication. Spindle opening is 5-1/4". The top drive has a travel of 66" which facilitates making connection. The spindle can easily be turned after disengaging the rotary clutch.	
Slide & Retract	Heavy duty 4" diameter hydraulic cylinders with 2" chrome plated piston rods to supply 18" of fore and aft movement and 6" left and right movement off the centerline for above drill frame.	
Hydraulic Hoist	Two double-acting hydraulic hoisting-pulldown cylinders mounted directly to the top drive and supported by the mast. Effective stroke 78" with hydraulic hoisting force of 30,000 lbs. and a pulldown force of 20,000 lbs. Hoisting speeds up to 50 fpm and downspeeds up to 75 fpm based on 65 gpm.	
The Control Panel	is laid out, utilizing the latest modern design air controls and remote controls for all hydraulic functions. The controls are grouped together, with necessary gauges, to simplify operation. All controls can be reached while standing on ground level.	
Hydraulic Circuit	Low pressure hydraulic circuitry with three valve banks located on the machine in a way to minimize necessary piping. Complete with a large volume hydraulic tank and in-tank return line filtration. Pressure compensated design automatically maintains constant selected down pressure (pulldown). Complete with precise holdback weight control for optimum drilling.	
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	Cat Head	Mechanically driven air clutch control cathead with 8" drum diameter. Maximum single line pull 3,000 lbs., with speeds up to 600 rpm. at 1600 rpm. engine speed. The cathead is mounted in such a way that operation is handled from the rear of the drill unit. The cathead may also be used as a sample driver hoist, utilizing a wireline rather than a rope.
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	Water Tank	Heavy gauge sheet metal 200 gallon capacity water tank with 8" storage compartment. Equipped with a large fill opening, a full height sight glass, two 2" valves and a large drain plug. Also available 300 gallon water tank with comparable storage compartment.
Other Options	25' mast extension, 30' mast extensions, Crown block assemblies, Stacking ring, Catline sheave, Discharge Piping, Frame extension, Sub-frame extension, Flowline (for Moyno pump), Primer Assembly, Hinged front bumper (Jack mount), Mechanical Jacks, Sample driver hoist (3,000 lbs. single line pull), Sample driver hoist (Mobile safety driver hoist), Core Extruder (3" x 38" stroke hydraulic cylinder).	

Specifications are subject to change without official notice.



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2215 S. Van Buren • P.O. Box 872 • Enid, OK 73702 • (405) 234-4141 Telex 796524 • Cable GEFCO • FAX (405) 233-6807

1-800-749-7441