

1820



Ditch Witch 1820

Featuring extra power, rugged components and straightforward operation, the Ditch Witch 1820 is a compact walkalong trencher designed for installation of underground service lines at residential and commercial sites.

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Power

- Honda Air-cooled GX610 producing 17.5 flywheel horsepower (13 kW) under full load.

Productivity and Performance

- Compact, walkalong design.
- Extra power for greater productivity.
- Efficient mechanical digging chain drive trenches to depths of 48 inches (1220 mm), depending on boom and chain.
- Three optional pivots for trench widths from 3.25 to 16 inches (85 - 405 mm).
- Drive wheels can be steered during trenching.
- Drive wheels can be locked for straight-line trenching or one wheel freed for maneuverability.

Reliability

- Stronger digging chain sprocket hub.
- Larger sheaves on headshaft drive for longer belt life.
- Sealed, weatherproof electrical connectors; automotive-type fuse.

Operator Efficiency

- All controls accessible from operator's station.
- Color-coded control levers match colors on easy-to-read instruction panel.
- Interlock module stops engine if operator releases forward-reverse-steering control lever.
- Recessed location protects key from accidental breakage.

Maintenance

- No drive chains to adjust.
- Reduced maintenance service points.
- Easy access to service areas.

Dimensions	U.S.	Metric
Trench depth, max.	48 in	1.22 m
Trench width, min. to max	3.3-16 in	85-405 mm
Boom travel up	60°	60°
Boom travel down	66°	66°
Headshaft height	11 in	280 mm
Length-transport	81 in	2.06 m
Width-transport	35.6 in	905 mm
Height-transport	63 in	1.6 m
Tread	27 in	685 mm
Angle of departure	84°	84°
Wheelbase	43 in	1.09 m
Centerline trench to outside edge machine, left	16.3 in	415 mm
Centerline trench to outside edge machine, right	19.3 in	490 mm
Angle of approach	32°	32°
Angle of approach w/boring attachment	17°	17°
Spoil discharge reach	13.2 in	335 mm
*NOTE: Dimensions are based on narrow tread and 8 in (203mm) pivot.		
Operational	U.S.	Metric
Vehicle speeds		
Maximum forward	142 fpm	43 mpm
Maximum reverse	86 fpm	26 mpm

Vehicle clearance circle(SAE)	20.7 in	6.3 mm
Digging chain speed @ 207 rpm	290 fpm	88 mpm
Tire steering angle		
Inside tire	28.5°	28.5°
Outside tire	23°	23°
Spoil handling		
Auger-type: single open end		
Auger-size	1885 in OD x 1.5 in ID x 11.5 in long	476 mm OD x 40 mm ID x 290 mm long
Trencher cleaner type: Mechanical		
Trencher cleaner size	4 - 16 in	100 - 405 mm
Operating weight (based on roller boom and narrow width digging chain)	1300 lb	590kg
Power Train	U.S.	Metric
Ground Drive Transmission		
(Drive and Dig) - Infinitely variable from zero to maximum, enclosed gear box to axle, speed and direction controlled with single lever.		
Clutch - Mechanical, hand operated, spring loaded with tension roller for belt drive.		
Belt - 2 strand 3V "Power Band"		
Tires - drive: 23 x 8.50 - 12 23 x 10.50 - 12 (option)		
Tire - trail: 16 x 6.50 - 8		
Trencher Drive		
Mechanical: Belt drive to enclosed reduction drive, headshaft		
Belt: 3 strand "Power Band"		
Digging Chain: 33,000 lb (15000 kg) test		
Chain drive sprocket: Forged and tempered		
Spoil Handling Drive		
Type: Mechanical, attached to and rotates with headshaft		
** With 12 in pivot option * With 16 in pivot option		
Power	U.S.	Metric
Engine: Honda - GX610		
Type: 4-stroke, overhead valve		
Fuel: Gasoline		
Cooling medium: Air		
Number of cylinders: 2		
Displacement	37.5 cu in ³	614 cm ³

Bore	3.03 in	77 mm
Stroke	2.60 in	66 mm
Gross power @ 3600 rpm	18 hp	13.4 kW
*Maximum governed speed (no load)	3600 rpm	3600 rpm
**Maximum tilt angle	20°	20°
*Product support policy may be void if engine is run above "Maximum Governed Speed (no load)."		
**Exceeding this operating angle will cause engine damage. This DOES NOT IMPLY machine is stable to maximum angle of engine operation.		
Hydraulic System	U.S.	Metric
Drive pump capacity at 3200 rpm	12.6 gpm	48 Lpm
Filtration: Return flow, 10 micron nominal		
Hydraulic motor, drive		
Displacement / rev	4.9 in ³	80 cm ³
Function: Boom lift, steering		
Type: Double acting		
Steering		
Type - Power on drive axle, lever controlled		
Fluid Capacities	U.S.	Metric
Fuel tank - Gasoline	5.4 gal	20.4 L
Engine Oil - Honda GX610	2.6 pt	1.2 L
Hydraulic reservoir	5.5 gal	20.8 L
Hydraulic system	6.3 gal	23.7 L
Headshaft reducer oil	2.5 pt	1.2 L
Axle reducer oil	2.5 pt	1.2 L
Battery		
Group 26R, 12-volt, top-post; SAE Reserve Capacity 60-80 min; SAE cold crank 450 amps.		
Specifications are called out according to SAE recommended practices. Specifications are general and subject to change without notice. If exact measurements are required, equipment should be weighed and measured. Due to selected options, delivered equipment may not necessarily match that shown.		

