



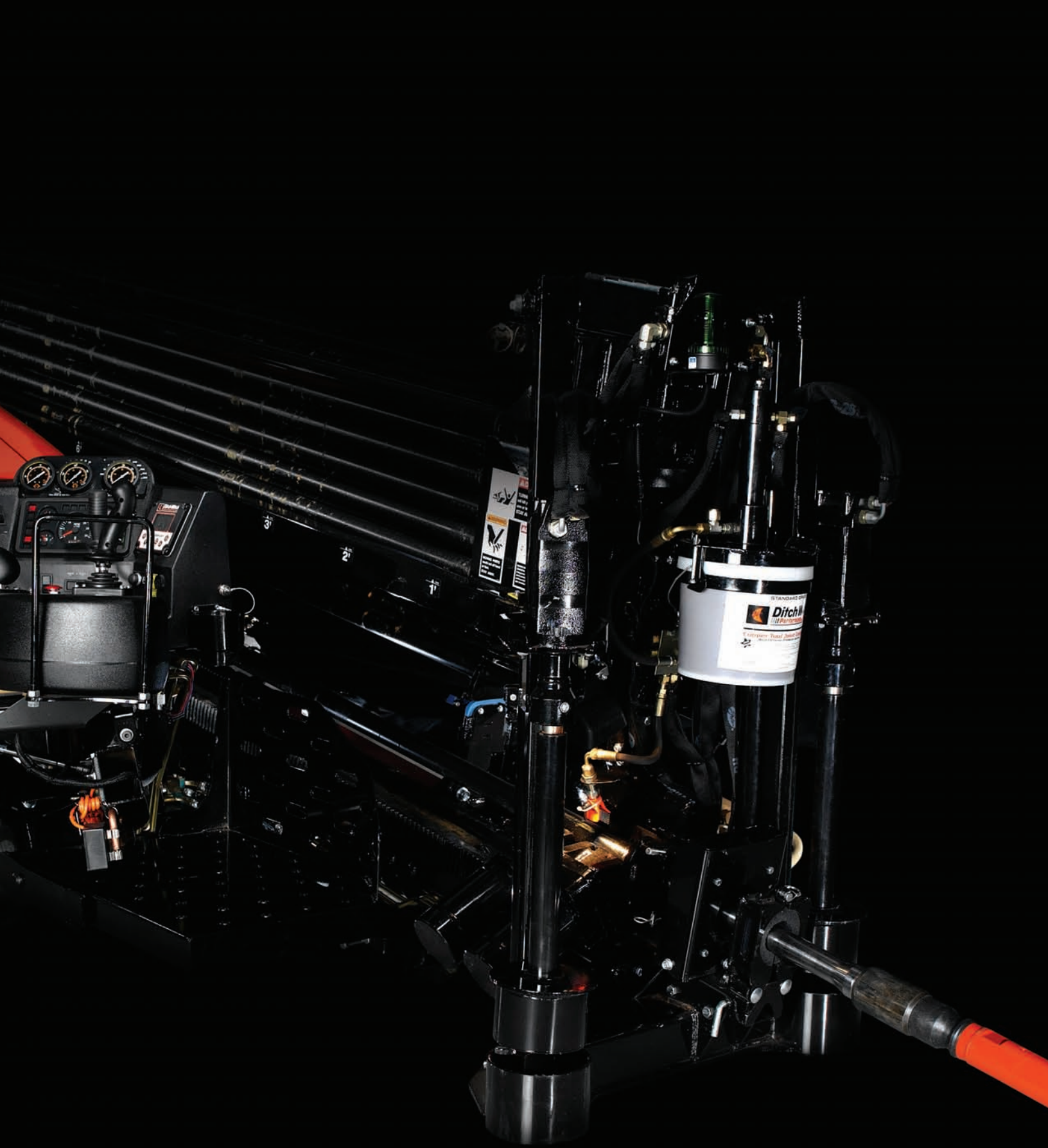
DITCH WITCH JT2020, JT1220

DIRECTIONAL DRILLS



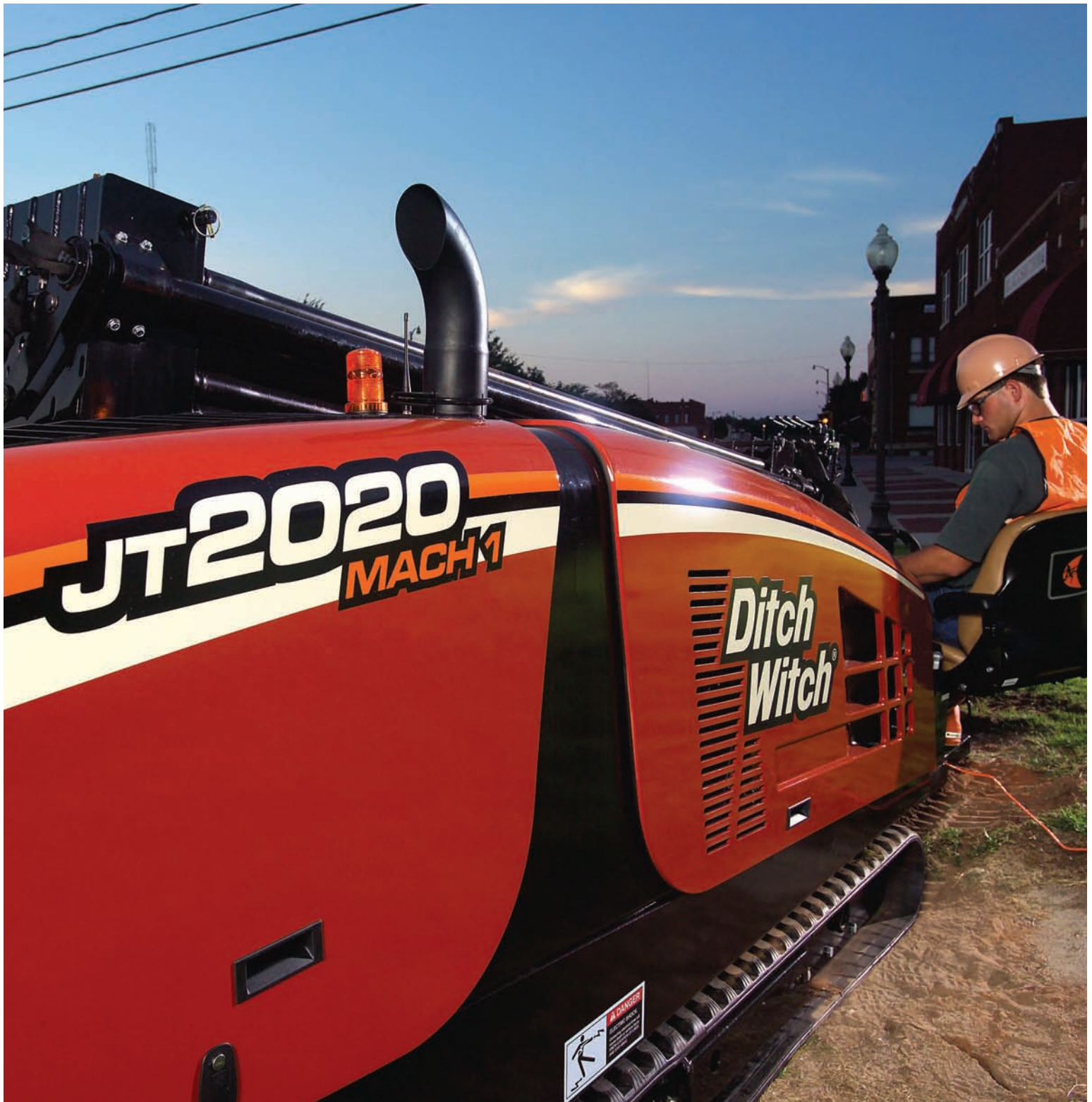
THAT OLD ORANGE MAGIC. **DITCH WITCH.**

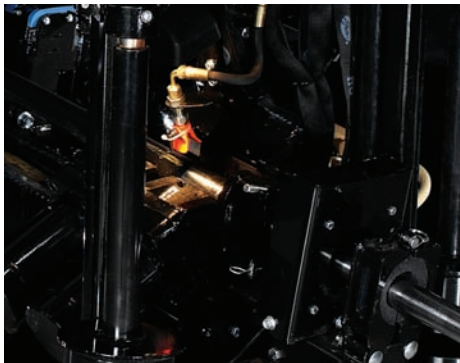




DITCH WITCH JT2020, JT1220 MACH 1 DIRECTIONAL DRILLS

The JT2020 and JT1220 Mach 1 directional drills are the muscle machines of their class. The JT2020 packs 20,000 pounds of pulling power and the highest ratio of power to size in its class. And just like the JT1220, this well-balanced powerful drill is engineered with a one-step anchoring system for quick setup and a groundbreaking pipeloader that allows column selection from the operator's station. And both JTs can work as long as you do, thanks to an advanced engine enclosure design that keeps them running quietly and smoothly.





JT2020 FEATURES

The highest ratio of power to size enables the unit to install larger product in a wider variety of soil types, even in confined areas.

Packs 20,000 pounds of pulling power in a compact package.

High fluid flow for longer installations and work in sandy soil conditions.

Enclosed fluid pump system is easy to winterize and helps keep pump warm during winter operation.

JT2020, JT1220 DETAILS

Operator station provides excellent visibility of the pipes and pipeloading system.

Minimal maintenance; with no zerks to grease each day, you'll spend more time working and less time servicing the unit.

Tethered ground drive controller allows the operator to maneuver the unit from a position which provides increased visibility, easier loading/unloading, and easier positioning.

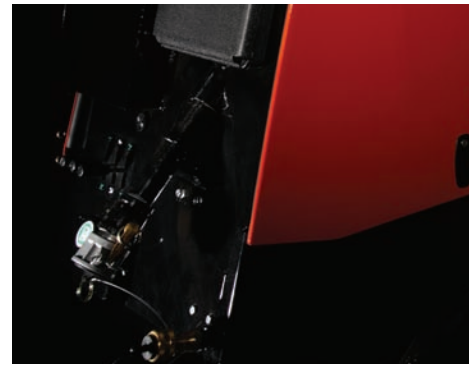
Rack-&-pinion thrust system provides outstanding power transfer and performance for a wide range of HDD jobs.

Cruise control simplifies drilling and backreaming by reducing operator effort.

Large-capacity pipe lubrication system minimizes maintenance time by keeping contamination out.

DITCH WITCH JT2020, JT1220 MACH 1 DIRECTIONAL DRILLS

Recognized as two of the best directional drills on the market, the JT1220 and JT2020 are high performance machines with low maintenance costs. The JT1220 is compact and extremely quiet, enabling it to work long hours in sensitive urban environments. And like its big brother the JT2020, this productive drill reduces operator fatigue through features like cruise control for simplified drilling and backreaming, high drilling fluid pressure capacity for easier steering, and a tethered ground drive controller. Your operator doesn't wear out and neither does your welcome.



JT2020, JT1220 DETAILS

Two-speed carriage significantly decreases cycle time; "assisted makeup" feature increases the life of drill pipe joints by automatically matching carriage movement speed with rotation during pipe makeup and breakout.

Efficient pipeloading system allows column selection from the operator's station; Mach 1 pipeloader automation is available to further simplify operation.

High drilling fluid pressure capacity makes steering easier in hard soil conditions.

One-step anchoring system provides quick setup.

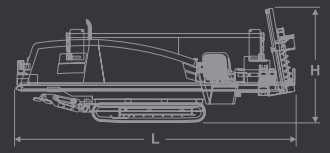
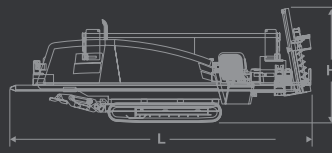
Engine enclosure directs hot engine air away from the operator, improves the machine's appearance, simplifies maintenance, and allows operation in residential and other noise-sensitive areas.

JT1220 FEATURES

Minimal noise output for longer operation in residential or commercial areas.

Open top vise wrenches provide excellent visibility of pipe tool joints during pipe makeup and breakout.

Integrated electronic system with tracker control enables tracker operator to disable power to drilling unit's thrust and rotation.



SPECIFICATIONS

JT2020

JT1220

DIMENSION

OVERALL LENGTH*
OVERALL WIDTH*
OVERALL HEIGHT*
DRILLING UNIT OPERATING MASS*
ENTRY ANGLE
ANGLE OF APPROACH
ANGLE OF DEPARTURE

U.S.	METRIC
203 IN	5.16 M
51.5 IN	1.31 M
78 IN	1.98 M
10,800 LB	4899 KG
10-14°	10-14°
18°	18°
18°	18°

U.S.	METRIC
188 IN	4.78 M
51.5 IN	1.31 M
78 IN	1.98 M
9700 LB	4400 KG
10-14°	10-14°
18°	18°
18°	18°

POWER PIPE

LENGTH, NOMINAL*
DIAMETER*
DIAMETER, TOOL JOINT END*
BEND RADIUS, MINIMUM
WEIGHT (LINED)*

U.S.	METRIC
120 IN	3 M
2.06 IN	52.3 MM
2.63 IN	66.8 MM
130 FT	39.6 M
67 LB	30.4 KG

U.S.	METRIC
120 IN	3 M
1.82 IN	46.2 MM
2.38 IN	60.4 MM
105 FT	32 M
54 LB	24.5 KG

OPERATION

SPINDLE SPEED, MAXIMUM*
SPINDLE TORQUE, MAXIMUM*
CARRIAGE THRUST TRAVEL SPEED*
CARRIAGE PULLBACK TRAVEL SPEED*
THRUST FORCE*
PULLBACK FORCE*
BORE DIAMETER
BACKREAM DIAMETER (SOIL DEPENDENT)
GROUND TRAVEL SPEED, MAXIMUM*
FORWARD
REVERSE

U.S.	METRIC
150 RPM	150 RPM
2200 FT•LB	2983 N•M
140 FPM	43 M/MIN
140 FPM	43 M/MIN
17,000 LB	75.6 KN
20,000 LB	89 KN
4 IN	102 MM
VARIABLE	VARIABLE
3.0 MPH	4.8 KM/H
3.0 MPH	4.8 KM/H

U.S.	METRIC
180 RPM	180 RPM
1400 FT•LB	1898 N•M
155 FPM	47 M/MIN
155 FPM	47 M/MIN
10,000 LB	44.5 KN
12,000 LB	53.4 KN
3.5 IN	89 MM
VARIABLE	VARIABLE
2.7 MPH	4.3 KM/H
2.7 MPH	4.3 KM/H

POWER

ENGINE
FUEL
COOLING MEDIUM
INJECTION
ASPIRATION
CYLINDERS
DISPLACEMENT
BORE
STROKE
MANUFACTURER'S GROSS POWER RATING**
RATED SPEED

U.S.	METRIC
CUMMINS B3.3	
DIESEL	
LIQUID	
DIRECT	
TURBOCHARGED	
4	
199 IN ³	3.3 L
3.74 IN	95 MM
4.53 IN	115 MM
83 HP	62 KW
2400 RPM	2400 RPM

U.S.	METRIC
CUMMINS B3.3	
DIESEL	
LIQUID	
DIRECT	
NATURAL	
4	
199 IN ³	3.3 L
3.74 IN	95 MM
4.53 IN	115 MM
60 HP	45 KW
2200 RPM	2200 RPM

DRILLING FLUID SYSTEM (ON-BOARD)

DRILLING FLUID PRESSURE, MAXIMUM *
DRILLING FLUID FLOW, MAXIMUM *

U.S.	METRIC
1500 PSI	103 BAR
30 GPM	114 L/MIN

U.S.	METRIC
1250 PSI	86 BAR
15 GPM	57 L/MIN

FLUID CAPACITIES

HYDRAULIC RESERVOIR
FUEL TANK

U.S.	METRIC
17 GAL	64 L
30 GAL	114 L

U.S.	METRIC
17 GAL	64 L
19 GAL	72 L

BATTERY

SAE RESERVE CAPACITY RATING
SAE COLD CRANK RATING @ 0° F (-18° C)

195 MINUTES
950 AMPS

195 MINUTES
950 AMPS



THE CHARLES MACHINE WORKS, INC. DITCH WITCH WORLDWIDE HEADQUARTERS PERRY, OK 73077-0066 U.S.A.

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