

The BBS 18 is a medium capacity drill for holes of 550m (1800 ft) of A† wireline. The above drill is shown with an air cooled Deutz F3L912 diesel engine, H size swivelhead with swivel head guard, hydraulic chuck, hydraulic side-mounted wireline hoist, single hydraulic pump, and swivel ring for mast mounting.

Features

- The industry's widest range of spindle torques and speeds through a unique selection of bevel gears and sprocket ratio options.
- Low profile for ease of movement and drill stability.
- Choice of options to suit customer requirements.
- Drill may be readily broken down into modules for transportation.
- All components are easily accessible for service.
- Controls are grouped for operator convenience and safety.

Nominal Depth Rating		
Single Line Rating 2550 kg (5800 lbs)		
Rod Size	(m)	(ft)
A †	550	1800
B †	420	1400
N †	330	1100
H †	210	700

Drilling Speeds / Torques - High Gear			
Sprocket Ratio	rpm	Nm	ft lbf
1.37:1 (Std)	1014	364	269
1.74:1	798	463	341

† Refers to "O", "Q", "T", or other similar wireline systems.

SPECIFICATIONS**Depth Rating - Single Line**

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Diesel Power Unit

Model	Deutz F3L912 (STD)
Horsepower	39 kW (52 bhp) @ 2500 rpm
Max. torque	160 Nm (118 lbf) @ 1600 rpm
Fuel consumption @ 2500 rpm	234 g/kWh 0.385 lb/hph

Other engines available on request.

Diesel engine data based on manufacturers specifications.

Power Train

Clutch	254 mm (10 in) Automotive Type Heavy Duty
Transmission	4 Speed Industrial Type
Ratios	1st: 8.32 2nd: 3.09 3rd: 1.69 4th: 1.0
Drive line	Heavy duty Universal joints
Front end drive	Cast steel
Chain	Quadruplex 13 mm (1/2 in) pitch
Sprockets	Optional Ratios Available as kits.

Hydraulic System

Single pump (pressure compensated type)	80 L/min (21 gpm US)
Optional second pump for hydraulic water pump drive	76 L/min (20 gpm US)
Tank volume - single pump	64 L (17 gal US)
- double pump	155 L (41 gal US)
Swivel head circuit maximum pressure	6890 kPa (1000 psi)
Hydraulic chuck circuit	6890 kPa (1000 psi)
Wireline hoist circuit maximum pressure	10340 kPa (1500 psi)

Fuel Tank

With single hydraulic pump	64 L (17 gal US)
With double hydraulic pump	91 L (24 gal US) located on operator's side

Main Hoist

Single line hoist rating	2550 kg (5600 lbs)
Hoist type	Differential with brake bands
Drum capacity	20 m of 13 mm dia. cable (65 ft of 1/2 in)
Drum diameter	205 mm (8 in)
Drum length	115 mm (4 5/8 in)
Cable supplied	20 m of 13 mm dia. (65 ft of 1/2 in)
Brake/clutch levers	Double fulcrum action, over centre lock, swivelling type
Clutch brake drum	346 mm dia. x 64 mm (13 5/8 in x 2 1/2 in)
Hoist brake drum	346 mm dia. x 65 mm (13 5/8 in x 2 1/2 in)

Wireline Hoist

Rated capacity	
- with LEVELWIND	827 m (2755 ft) of 5 mm (3/16 in) cable
- without LEVELWIND	806 m (2685 ft) of 5 mm (3/16 in) cable
Maximum line speed	
- bare	118 m/min (385 ft/min)
- full	219 m/min (717 ft/min)
Maximum line pull	
- bare	666 daN (1467 lbf)
- full	358 daN (788 lbf)

Hydraulic Swivel Head (12 HH)

Drive tube I.D.	92 mm (3 5/8 in)
Swivel head rotation	360 degrees
Bevel gear ratios	
- standard	1.8:1
Hydraulic pressures	6890 kPa (1000 psi)
Maximum thrust	9978 daN (21600 lbf)
Maximum lift	11383 daN (25100 lbf)
Piston rod O.D.	38 mm (1 1/2 in)
Cylinder I.D.	102 mm (4 in)
Stroke - standard	610 mm (24 in)
- optional	760 mm (30 in)

Hydraulic Chuck (12 HH)

Chuck holding capacity	10900 kg (24000 lbs)
Number of jaws	9
Jaw type	Replaceable carbide insert
Chuck action	Spring closed, hydraulic release

SPECIFICATIONS**Standard Equipment**

- 12 HH Hydraulic swivel head with 610 mm (24 in) stroke
- Swivel head guard
- Fast retract valve on 12 HH swivel head
- Bit weight indicator
- Heavy duty 4 speed transmission
- Heavy duty automotive clutch
- Heavy duty battery

Optional Accessories

- Manual chuck with 3 jaws
- Hydraulic frame retraction 406 mm (16 in) stroke with skid-type base (for use with free standing mast)
- Second hydraulic pump for hydraulic water pump drive
- Hydraulic Chuck
- Sheaves and fair leads for self propelling
- Top mounted cathead
- Bit tachometer
- Heavy duty over centre clutch
- Side mounted wireline hoist, hydraulically powered
- LEVELWIND for even wireline spooling
- Swivel ring mast with base
 - 6.1 m (20 ft) pull 8165 kg (18000 lb) working load
 - 9.1 m (30 ft) pull 8165 kg (18000 lb) working load
- Hydraulic hose protection

DRILL PERFORMANCE

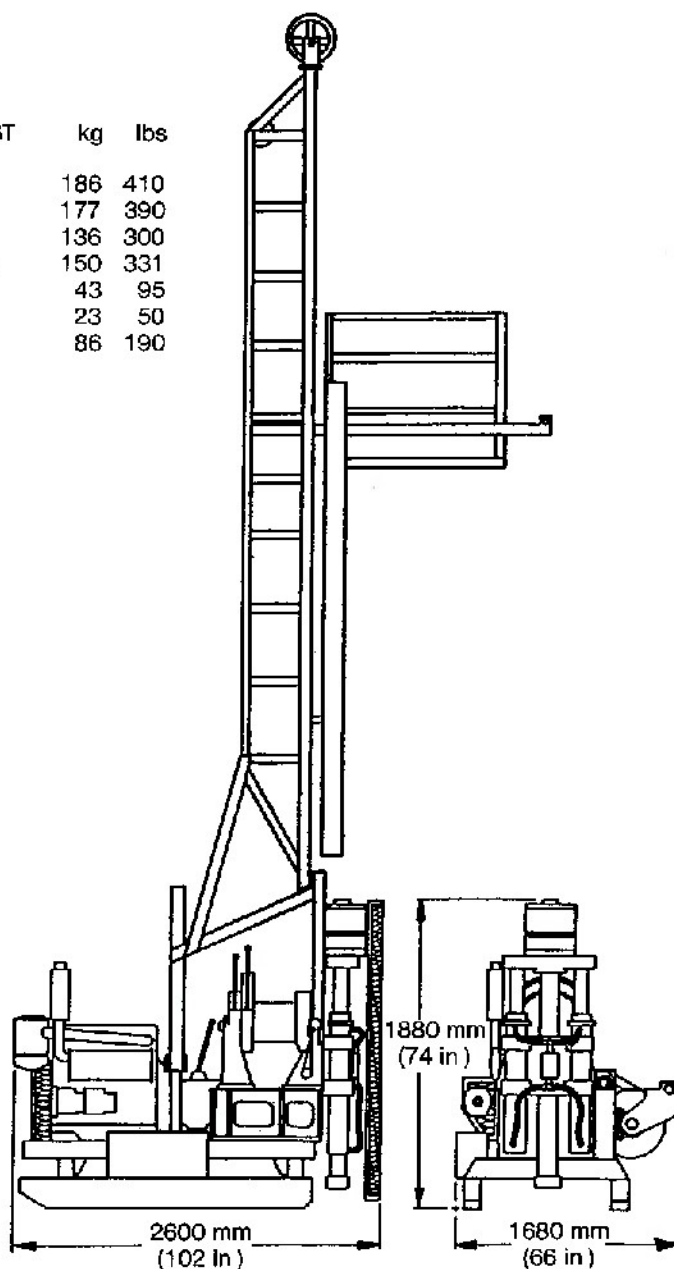
Front End	Swivelhead				Hoist			
	Bevel Gear Ratios 1:8:1 (standard)							
	Sprocket Ratios	GEAR	SPINDLE rpm	SPINDLE (ft lbf)	TORQUE (Nm)	HOIST PULL (lbf)	HOIST PULL (daN)	HOIST SPEED (fpm)
1.37:1 ratio	4	1014	269	364	5697	2534	325	99
(standard)	3	600	454	616	9627	4282	192	59
Tailshaft 24T	2	328	831	1126	17602	7830	105	32
Mainshaft 33T	1	160	1699	2303	36002	16014	51	16
1.74:1 ratio	4	798	341	463	7235	3218	256	78
(optional)	3	472	577	782	12227	5439	152	46
Tailshaft 19T	2	258	1055	1430	22356	9944	83	25
Mainshaft 33T	1	126	2158	2925	45725	20339	41	12

- spindle rpm, spindle torque, and hoist speed are calculated at 2500 rpm with Deutz F3L912 diesel engine (standard) and 100% gearing efficiency.
- hoist pulls shown are calculated at maximum engine torque at 1600 rpm and 100% gearing efficiency.
- chart gives single line hoist pulls in all transmission gears. The operator must exercise caution that the rated hoist single line pull of 2490 daN (5600 lbs) must not be exceeded when using full torque in lower gears or damage may result.

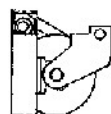
WEIGHTS AND DIMENSIONS

20 FT PULL MAST

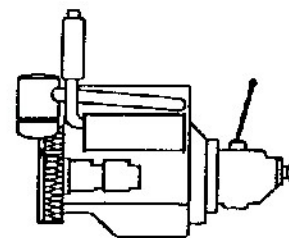
	kg	lbs
Upper Section	186	410
Lower Section	177	390
Mast Base	136	300
Basket Assembly	150	331
Backstay Legs	43	95
Crown Block	23	50
Raise Cylinders	86	190



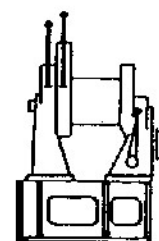
	kg	lbs
Complete Drill Assy	2000	4410



	kg	lbs
W/L Hoist Assy		
Complete	227	500
LEVELWIND Only	54	120



POWER UNIT	kg	lbs
Deutz F3L912 (std)	290	639
Transmission	77	170
(Clutch included with engine)		

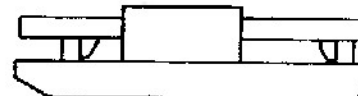


HOIST & FRONT END ASSY

	kg	lbs
Hoist Assy and 'A' Bracket	136	300
Front End Assy	44	98
Sub Base	43	95



	kg	lbs
12 HH Swivelhead		
Complete	345	760
Chuck Only	113	250



	kg	lbs
Frame Assy		
Complete	177	390
Hyd Tanks Only	41	90

Dimensions and weights shown are approximate. When more accurate values are required contact factory.

In the interest of product improvement JKS Boyles reserves the right to change design, specifications and price without notice.