## BG 30 #5055 Y.O.M 2019 Current Hours approx. 3,700

## Summary

Pos.	Qty	Description
1	1	RALIER RC 30 / RT 80 Value Line
1 1	1	BACER BG 307 BT 80 Value Lille
1.1	1	
1.3	1	Uigh comfort operator's coh
1.4	1	Comfort operator soot
1.0	<u>ا</u>	Comion operator seat
1.0	1	Air conditioning outom
1./	1	Air conditioning system
1.0	 	
1.9	1	Disast as airs 200 bit OAT OO 2 Ots as IV / Tisa 4 final
1.10	1	Diesei engine 298 kW CAT C9.3 Stage IV / Tier 4 final
1.11	1	
1.12	1	Hydraulically powered air compressor
1.13	1	Spiral colled tube for compressor
1.14	1	
1.15	1	Measuring and control system
1.16	1	Automatic Controls and Assistant Systems
1.17	1	Two cameras for rear area surveillance
1.18	1	additional camera
1.19	1	Remote control Basic
1.20	1	DTR module
1.21	1	Web - BGM - Access "Advanced" 12 months
1.22	1	Slewing indication of the upper carriage
1.23	1	Hydraulic system
1.24	1	Installed hydraulic fluid: Syntofluid PE-B 30
1.25	1	Quick-release couplers on bulkhead plate
1.26	1	Counterweight stack 19.7 t
1.27	1	Platforms with handrail
1.28	1	Integrated service platform
1.29	1	Foldable guardrails upper level
1.30	1	Undercarriage UW 100
1.31	1	Triple grouser track shoes 800 mm
1.32	1	Quick-release couplings for undercarriage
1.33	1	Kinematic system
1.34	1	Mast
1.35	1	Crowd sledge for drill axis 1,350 mm
1.36	1	Thrust rod 1.5 m
1.37	1	Crowd cylinder 8.5 m stroke
1.38	1	Main winch 265 kN, single layer

Pos.	Qty	Description
1.39	1	Wire rope ø 32 mm, length 100 m
1.40	1	Swivel 30 t 80 / 60
1.41	1	Auxiliary winch 80 kN
1.42	1	Wire rope ø 20 mm, length 60 m
1.43	1	Rotary drive KDK 300 S
1.44	1	Kelly drive adapter KA 500 / 394 with cardanic joint
1.45	1	Free gear for rotary drive with casing oscillator operation
1.46	1	Standard paint finish Value Line
1.47	1	Service tool set
1.48	1	Wire rope sling for loading upper mast section
1.49	1	Hydraulic system installation for casing oscillator (2-circuit system)
1.50	1	Casing oscillator connection - steelworks
1.51	1	Technical documentation for Kelly drilling process
2	1	Kelly bar BK 400/394/3/33

## **Technical specification**

Pos.	Article
1	<ul> <li>BAUER BG 30 / BT 80 Value Line</li> <li>The machines of the Value Line have been designed specifically for Kelly drilling applications</li> <li>We offer our customers wide-ranging benefits: <ul> <li>Long mast for increased drilling depth</li> <li>Wide drill axis for large diameters</li> <li>Well balanced concept for high productivity and cost-effective operation</li> <li>Hydraulic system for high dynamic performance</li> <li>Easy handling and easy maintenance</li> <li>Variable transport concept</li> <li>Latest HSE features for safe operation</li> </ul> </li> </ul>
1.1	<ul> <li>Base carrier BT 80</li> <li>The base carrier BT 80 is designed and built by Bauer Maschinen</li> <li>Diesel tank capacity 600 I / 158.5 gal</li> <li>Ambient air temperature at full power up to 45°C / 113°F</li> <li>Sound pressure level in cabin (EN 791, annex A) LPa 80 dB(A)</li> <li>Sound power level (2000/14/EG u. EN 791, annex A) LWa 110 dB(A)</li> <li>Standard equipment:</li> <li>Stackable counterweight set</li> <li>Engine diagnostic system</li> </ul>
1.3	CE label
1.4	<ul> <li>High-comfort operator's cab</li> <li>BAUER high-comfort operator cab with Protective roof guard, tinted side windows and sliding entry door with integrated sliding window</li> <li>Sliding door with sliding window</li> <li>FOPS certified</li> </ul>

Pos.	Article
	<ul> <li>Protective roof guard</li> <li>VSG glass for front windscreen and side windows</li> <li>Front windscreen clear glass; skylight and side windows tinted with antiglare coating</li> <li>Wipe / wash system for skylight and front windscreen</li> <li>Cab heater</li> </ul>
1.5	Comfort operator seat
	<ul> <li>Mechanically sprung high-comfort seat</li> <li>Weight and height adjustable</li> <li>Tilt angle adjustable</li> <li>Horizontally adjustable</li> <li>Headrest</li> <li>Armrest on both sides</li> <li>Document pouch</li> </ul>
1.6	Radio with MP3, USB and Bluetooth hands-free system
1.7	Air conditioning system     With manual control
1.8	Protective roof guard
	Additional protection of the roof window against falling objects
1.9	<ul> <li>Independent cab heater with automatic timer</li> <li>For cab heating and preheating diesel engine coolant</li> <li>Fuel powered 9 kW heating element, incl. coolant and fuel pump, for heating the coolant preheating circuit</li> <li>Integration of cab heater in coolant preheating circuit</li> <li>Time-controlled on and off switch</li> <li>Coolant temperature-controlled heat output control</li> </ul>
1.10	<ul> <li>Diesel engine 298 kW CAT C9.3 Stage IV / Tier 4 final</li> <li>Engine CAT C 9.3</li> <li>Rated output ISO 3046-1 298 kW / 400 hp @ 1,800 rpm</li> <li>Engine conforms to exhaust emission standard EEC 97/68 EC Stage IV // EPA/Carb Tier 4 final</li> <li>Incl. diesel particulate filter</li> <li>Incl. SCR-catalytic with AdBlue injection</li> </ul>
1.11	<ul> <li>Comfort handling package</li> <li>The comfort handling package makes it easy to do the service. The package includes:</li> <li>Central lubrication</li> <li>Diesel refueling pump</li> <li>Swivel with hook for auxiliary winch</li> <li>Camera for monitoring the main winch</li> <li>Pressure gauge in the uppercarriage, for check pressure of main and auxiliary circuits</li> <li>Working light for easy plugging</li> <li>On board tool kit</li> <li>Tool storage in front of the operator's cabin</li> <li>Wire rope sling</li> </ul>
1.12	Hydraulically powered air compressor
	<ul> <li>Max. pressure: 12 bar / 174 PSI</li> <li>Suction capacity: 1,000 l/min / 264 gal/min</li> <li>Container volume: 17 l / 4.49 gal</li> </ul>

Pos.	Article	
1.13	Spiral coiled tube for compressor	
1.14	<ul> <li>Arctic kit</li> <li>Arctic kit at order 3 months before date of delivery</li> <li>Arctic kit to run machine under low temperature conditions, consisting of:</li> <li>Pre-heating of hydraulic tank by electric heater 230 V</li> <li>Pre-heating of cooling water</li> <li>Diesel filter with heating 24 V</li> <li>2 nos. heating plates for batteries</li> </ul> Recommended for temperatures max20°C	
4 4 5	Lower temperatures have to be handled as a separate project	
1.15	<ul> <li>High-resolution 7" color screen with integrated diagnostic capability</li> <li>Digital display of pump pressures</li> <li>Display of fault message</li> <li>Mast inclination measurement on x/y axes (digital/analog display)</li> <li>Automatic vertical alignment of mast</li> <li>Inclination supervision system</li> <li>Depth measuring device on main winch</li> <li>Main winch with electronic load sensing</li> <li>Slack rope prevention</li> <li>Automatic swivel alignment</li> <li>Hoist limit switch on main and auxiliary winch</li> <li>Auxiliary winch with hydraulic load sensing</li> </ul>	
1.16	<ul> <li>Automatic Controls and Assistant Systems</li> <li>Easier and more comfortable operation with: <ul> <li>Automatic drilling control for Kelly drilling</li> <li>One-directional spoil discharge assistant for augers</li> <li>Bi-directional spoil discharge for buckets</li> <li>Automatic extraction control for casings</li> </ul> </li> </ul>	
1.17	<b>Two cameras for rear area surveillance</b> System of closed circuit cameras for rear area surveillance (camera to the rear and to the right side of the	
	rig) with display on integrated screen in operator's cabin	
1.18	<ul> <li>additional camera</li> <li>Set consists of:</li> <li>additional camera on magnetic foot for rear area surveillance</li> <li>addition display in operators cabin</li> </ul>	
1.19	Remote control Basic	
	The remote control Basic simplifies the handling of the drilling rig during the rigging process. Laborious communication between the frontman at the drilling rig and the rig operator in the cab can, therefore, be omitted.	
	In addition, all functions can be executed from outside the danger zone.	
	<ul> <li>Range of functions:</li> <li>Travel the machine</li> <li>Retract / extend undercarriage</li> <li>Retract / extend backstay cylinder</li> <li>Retract / extend boom cylinder</li> <li>Move the crowd system</li> </ul>	

Pos.	Article
1.20	<ul> <li>DTR module</li> <li>The DTR Module serves as a hardware communication platform for data transfer of production and equipment data</li> <li>to a password-secured internet web server and</li> <li>within a local password-secured WLAN hot spot (on the construction site)</li> <li>inclusive Web - BGM - Access "Service" for 12 months</li> </ul>
	Limitation: Not usable in South Korea and Japan
	<ul> <li>The module consists of</li> <li>DTR (Data Transmission Receiver) computer</li> <li>GPS receiver</li> <li>GSM radio modem (GPRS/Edge)WLAN hotspot</li> <li>Combination antenna for GSM, WLAN and GPS and is integrated into the main cabinet.</li> </ul>
	<ul> <li>Web BGM Access functions:</li> <li>Monitoring of operating hours, diesel fuel consumption</li> <li>Location display</li> <li>Display and analysis of messages (incl. e-mail messaging)</li> <li>Display of maintenance and service information</li> <li>User Management</li> <li>For data transfer a SIM card (without PIN) must be supplied by the customer</li> </ul>
1.21	<ul> <li>Web - BGM - Access "Advanced" 12 months</li> <li>Functions <ul> <li>Monitoring of operating hours, diesel fuel consumption</li> <li>Location display</li> <li>(Live) online display of engine and equipment data</li> <li>Display and analysis of messages (incl. e-mail messaging)</li> <li>Display of maintenance and service information</li> <li>User management</li> </ul> </li> <li>Requirements</li> <li>For data transfer a SIM card (without PIN) must be supplied by the customer</li> </ul>
1.22	Slewing indication of the upper carriage
1.23	<ul> <li>Hydraulic system</li> <li>2-circuit hydraulic system</li> <li>Hydraulic power output <ul> <li>196 kW / 263 HP (measured at inlet to rotary drive)</li> </ul> </li> <li>Hydraulic pressure 350 bar / 5,076 psi</li> <li>Flow rates: <ul> <li>Main circuit 2 x 320 l/min / 84.5 gal/min</li> <li>Auxiliary circuit 1 x 130 l/min / 34.3 gal/min</li> <li>Hydraulic oil tank capacity 650 l / 171.7 gal</li> </ul> </li> </ul>
1.24	Installed hydraulic fluid: Syntofluid PE-B 30 AVIA Syntofluid PE-B 30: Bio-degradable* and cold ambient temperature hydraulic fluid. For highest performance, functionality and efficiency, providing longest service life of fluid and hydraulic components. Recommended for average ambient temperature: -40°C to +40°C / -40°F to +104°F. *see product data sheets for details AVIA Syntofluid PE-B 30 is a high-performance, polyalphaolefin-based (PAO) hydraulic fluid with excellent

Pos.	Article	
	viscosity-temperature characteristics. Its very high viscosity index VI provides optimal function at the highest efficiency. A combination of a special additive technology with synthetic hydrocarbons offers biodegradability and high technical qualification of the hydraulic oil in one product. An effective low and high thermal behaviour, coupled with excellent ageing stability, makes AVIA Syntofluid PE-B 30 ideal for use as a long- term hydraulic fluid for extended oil change intervals (based on oil analyses). A balanced, ash- and zinc-free active ingredient system guarantees excellent corrosion protection, low foaming tendency, good water and air release characteristics and compatibility with seal materials. AVIA Syntofluid PE-B 30 complies with DIN 51524-3 (HVLP-D) and ISO 6743-4 (HEPR). Its bio-degradability according to CEC-L-33-A-93 (21 days) is more than 85%. Before changing to or from AVIA Syntofluid PE-B 30, please ask for filling instructions. Specifications and safety data sheets are available on request.	
1.25	Quick-release couplers on bulkhead plate Quick-release couplers at the bulkhead plate for quick and easy disconnecting of mast lower section	
1.26	<ul> <li>Counterweight stack 19.7 t</li> <li>Counterweight package with a total weight of 19.7 t consisting of the following elements</li> <li>3 x 4.9 t</li> <li>2 x 2.5 t</li> </ul>	
1.27	Platforms with handrail	
1.28	<b>Integrated service platform</b> A service platform with handrail is integrated into the panelling of the upper carriage. By opening the drawer-like sections, the service platform offers easy and safe access for maintenance operations.	
1.29	Foldable guardrails upper level	
1.30	<ul> <li>Undercarriage UW 100</li> <li>Telescopic undercarriage</li> <li>Crawler type B 7</li> <li>Model: beam in to each other</li> <li>Track width (retracted/extended) 2,480 mm / 8.1 ft / 3,680 mm / 12.1 ft</li> <li>The overall width of the crawlers (retracted/extended) result by the track width plus the track shoes width</li> <li>Overall length of crawlers 5,670 mm / 18.6 ft</li> <li>Traction force effective / nominal 730 kN / 164,110 lbf / 860 kN / 193,336 lbf</li> <li>Travel speed 1.3 km/h / 0.8 mph</li> <li>Transport securing lugs on crawler units</li> <li>Removable crawler side frames</li> <li>Steps on crawler frames</li> </ul>	
1.31	Triple grouser track shoes 800 mm	
	<ul> <li>Track shoe width 800 mm / 31.5 in</li> <li>Suitable for UW 100</li> <li>Overall width of crawlers with width track shoes 800 mm / 31.5 in (retracted/extended) approx. 3,280 mm / 10.8 ft / 4,480 mm / 14.7 ft</li> </ul>	
1.32	Quick-release couplings for undercarriage Easy to handle disconnecting of the hydraulic system when removing crawler side frames	
1.33	<ul> <li>Kinematic system</li> <li>V-Kinematic system with:</li> <li>Support trestle system with backstay cylinders</li> <li>Jib cylinder for vertical and horizontal movement of the mast</li> <li>Mast inclination in drilling mode max. (dependent on equipment)</li> <li>Backward 15 degrees</li> </ul>	

Pos.	Article
	<ul> <li>Forward 5 degrees</li> <li>Lateral to left / right + / - 5 degrees</li> <li>Lateral to left / right with auxiliary winch operation + / - 5 degrees</li> </ul>
1.34	Mast With transport supports
1.35	Crowd sledge for drill axis 1,350 mm Mechanical connection between rotary drive and crowd sledge
1.36	Thrust rod 1.5 m
1.37	Crowd cylinder 8.5 m stroke Crowd force push / pull (effective) 200 kN / 44,962 lbf / 490 kN / 110,156 lbf Crowd force push / pull (measured at the rotary drive) 260 kN / 58,450 lbf / 430 kN / 96,668 lbf Stroke 8,500 mm / 27.9 ft Speed down 6.5 m/min / 21.3 ft/min Speed up 3.2 m/min / 10.5 m/min Fast speed down 27 m/min / 88.6 ft/min Fast speed up 23 m/min / 75.5 ft/min
1.38	<ul> <li>Main winch 265 kN, single layer</li> <li>Free wheeling main winch with 265 kN / 59,574 lbf effective line pull</li> <li>Winch classification M 6 / L 3 / T 5</li> <li>Line pull (1<sup>st</sup> layer) effective / nominal 265 kN / 59,574 lbf / 340 kN / 76,435 lbf</li> <li>Rope diameter 32 mm / 1.26 in</li> <li>Line speed (max.) 80 m/min / 262 ft/min</li> </ul>
	<ul> <li>Main winch mounted on the rear of uppercarriage (pickaback)</li> <li>wide winch drum for optimization of spooling process</li> <li>Winch drum with special grooving</li> <li>with hydraulically operated freewheeling</li> <li>camera monitoring system</li> <li>service-friendly winch position</li> <li>Swing down mechanism for transport</li> <li>Hoist limit switch</li> <li>Pivoted anchor point for main rope</li> </ul>
1.39	<b>Wire rope ø 32 mm, length 100 m</b> Special dimensioned wire rope
1.40	Swivel 30 t 80 / 60
1.41	<ul> <li>Auxiliary winch 80 kN</li> <li>Auxiliary winch with 80 kN / 17,985 lbf effective line pull in 1<sup>st</sup> layer</li> <li>Winch classification M 6 / L 3 / T 5</li> <li>Line pull (1<sup>st</sup> layer) effective / nominal 80 kN / 17,985 lbf / 100 kN / 22,481 lbf</li> <li>Rope diameter 20 mm / 0.79 in</li> <li>Line speed (max.) 55 m/min / 180 ft/min</li> <li>Standard equipment auxiliary winch:</li> <li>Hoist limit switch on auxiliary winch</li> <li>Pivoted anchor point for auxiliary rope</li> <li>Winch drum with special grooving</li> </ul>

Pos.	Article
1.42	Wire rope ø 20 mm, length 60 m
1.43	<ul> <li>Rotary drive KDK 300 S</li> <li>Multi gear drive KDK 300 S</li> <li>Torque at 350 bar / 5,076 psi nominal max. 301 kNm / 222,006 lbf ft</li> <li>Speed of rotation max. 51 rpm</li> <li>4 selectable modes of operation</li> </ul>
	<ul> <li>1st gear standard mode max. 301 kNm / 222,006 lbf ft at 7 rpm to 81 kNm / 59,742 lbf ft at 25 rpm</li> <li>1st gear M<sub>D</sub> reduced max. 223 kNm / 164,476 lbf ft at 9 rpm to 81 kNm / 59,742 lbf ft at 25 rpm</li> <li>1st gear rpm reduced max. 301 kNm / 222,006 lbf ft at 12 rpm</li> <li>2nd gear standard mode max. 147 kNm / 108,422 lbf ft at 14 rpm to 39 kNm / 28,765 lbf ft at 51 rpm</li> </ul>
	<ul> <li>Standard equipment</li> <li>Wear pads exchangeable without removal of rotary drive</li> <li>Quick-release hydraulic couplers</li> <li>Transport supports</li> </ul>
1.44	<ul> <li>Kelly drive adapter KA 500 / 394 with cardanic joint</li> <li>Incl. cardanic joint</li> <li>Kelly drive adapter for outer Kelly tube 394 mm / 15.50 in</li> <li>Integrated Kelly damping system</li> <li>Exchangeable Kelly drive keys</li> <li>Exchangeable Kelly drive adapter</li> </ul>
1.45	Free gear for rotary drive with casing oscillator operation Enables KDK rotation in idling mode while oscillating
1.46	Standard paint finish Value Line
1.47	Service tool set Supplements the on-board tool kit with useful tools for day-to-day site operations.
1.48	Wire rope sling for loading upper mast section
1.49	<ul> <li>Hydraulic system installation for casing oscillator (2-circuit system)</li> <li>Installation of an additional hydraulic system for operation of a casing oscillator</li> <li>Control from operator's cab</li> <li>Control unit for oscillator on the undercarriage</li> <li>Simultaneous operation of casing oscillator and rotary drive is not possible</li> </ul>
	used as front-end attachment to rotary drilling rigs. When mounted to the undercarriage of a rotary drilling rig, the full torque of the casing oscillator can be transferred to the casing string and the weight of the drilling rig can be activated as a reaction force to the vertical forces generated during installation of the drill casing. Exact setting-up over the pile position is achieved by adjustment of the relative horizontal position between casing oscillator and drilling rig. Mounting the casing oscillator with positive locking to different types of undercarriage is achieved by type-specific adapter units. The hydraulic power supply is provided by the on-board hydraulic system of the drilling rig. All functions of the casing oscillator can be conveniently controlled from the operator's cab with the existing controls.
	The multi-link clamping collar ensures a positive-fit and form specific transfer of all forces to the drill casing by uniform surface pressure. The casing oscillator can easily be adapted on site for use with smaller casing diameters by appropriate sets of inserts.

Pos.	Article
1.50	Casing oscillator connection – steelworks Oscillator connection for undercarriage UW 100 • Basic plate with connection eyes for undercarriage to receive BV adapter
1.51	<ul> <li>Technical documentation for Kelly drilling process</li> <li>containing: <ul> <li>Instruction manual</li> <li>Spare parts lists (English only)</li> <li>Hydraulic schematics</li> <li>Electric schematics</li> <li>Maintenance and repair log</li> <li>Additional documents</li> </ul> </li> </ul>
2	<ul> <li>Kelly bar BK 400/394/3/33</li> <li>Permissible for a max. nominal torque of 400 kNm / 295,024 lbf ft</li> <li>Suitable for drilling depths up to 33 m / 108.26 ft</li> <li>Number of sections: 3</li> <li>Diameter of outer Kelly section: 394 mm / 15.50 in</li> <li>Kelly drive stub for attachment of drilling tool: 200 mm / 7.87 in</li> <li>Locking system: fully lockable</li> <li>Upper turret, long, optimized for usage of upper Kelly guide</li> </ul>