

**DANH MỤC HÀNG HÓA YÊU CẦU BÁO GIÁ**  
(Đính kèm công văn)

STT	Tên VTTB (tiếng Anh)	Tên VTTB (tiếng Việt)	Ký mã hiệu	Đặc tính kỹ thuật	Nhà sản xuất	ĐVT	Số lượng
1	2a	2b	3	4	5	6	7
	<b>GIÀN TỰ NÂNG TAM ĐẢO 01</b>						
	<b>DRILLING MEASUREMENT SYSTEM</b>	<b>HT ĐO THÔNG SỐ KHOAN</b>	<b>P/N: 60-40</b>		<b>MD TOTCO/NOV</b>		
1	Diaphragm 6.44 sq.in, rubber, for compression load cell	Màng cao su Loadcell	CD204-2	Diaphragm 6.44 sq.in, rubber, for compression load cell Refer to CD204-2 ( CROWN) or equivalent	CROWN Or equivalent	PCS	2
2	Tong Torque Foot/LBS indication system 0 to 50.000 LBS with 24" Tong handle length	Đồng hồ đo Mô men		Tong Torque Foot/LBS indication system 0 to 50.000 LBS with 24" Tong handle length. Complete with 6" Gauge, 25Ft hose assy and 6.53" Tension Tong Cylinder. Refer to manufacturer CROWN or equivalent	CROWN Or equivalent	PCS	1
3	Brass Unisersal Sleeve 10mm	Hạt bấp lấp ống đồng mềm siết ống 10mm		Compression Ferrule for Soft Copper Tube, Brass Material, Suitable for 10 mm OD Tube, Compression Type Connection, Packing: 10 pcs/set.	All Brand	Set	10
4	Brass Unisersal Sleeve 8mm	Hạt bấp lấp ống đồng mềm siết ống 8mm		Compression Ferrule for Soft Copper Tube, Brass Material, Suitable for 8 mm OD Tube, Compression Type Connection, Packing: 10 pcs/set.	All Brand	Set	10
5	Brass Unisersal Sleeve 6mm	Hạt bấp lấp ống đồng mềm siết ống 6mm		Compression Ferrule for Soft Copper Tube, Brass Material, Suitable for 6 mm OD Tube, Compression Type Connection, Packing: 10 pcs/set.	All Brand	Set	10
6	Ultrasonic level transmitter	Cảm biến đo mức siêu âm	7ML5202-0FB0 Or equivalent	Short-range integrated ultrasonic level transmitter, intrinsically safe (ATEX, CSA, FM, IECEX, NEPSI) 2 wire, 4 to 20 mA loop powered ideal for liquids, slurries, and bulk materials in open or closed vessels to 5 meters (16.4 feet) . Transducer/Process connection: PVDF copolymer, R 2" (BSPT), EN 10226 Cable inlet: M20 x 1.5 (General Puposue Cable Gland (-20 to +60 C) included. Refer to SITRANS LU180 ( Siemens) or equivalent	Siemens/ Or equivalent	Set	8
7	Keyboard Assy	Bàn phím hệ thống MDTOTCO	H11062A	For Drilling instrumentation MDTOTCO/NOV system Control panel. Number of Keys: 16 Keys Mounting Type: Panel-mounted keyboard assembly Refer to H11062A/ 10129069-001 (NOV) or equivalent	MD TOTCO/NOV	Pcs	1
8	Signal converter	Bộ chuyển đổi và cách ly tín hiệu tương tự	ACT20P-PRO DCDC-S (1481970000 )	Power supply: 22 ÷ 230V AC/DC (±10%) Input: ±0.1...±100mA, ±40mV...±300V Output: 0...±10V, 0...±20mA I/O configurable via DIP switches Refer to ACT20P-PRO DCDC-S/1481970000 ( Weidmüller) or equivalent	Weidmüller/ Or equivalent	Set	8
	<b>TOPDRIVE SYSTEM</b>	<b>MÁY KHOAN ĐỈNH TOPDRIVE</b>	<b>PS2-500A</b>		<b>NOV</b>		
9	Suppressor-Surge W/Filter, 120VAC, 10A	Bộ lọc xung điện áp	STFE100-10N	Active Tracking Filter with Surge Protection Rated Voltage: 120 VAC Phase: Single Phase Rated Current: 10 A Frequency: 47-63 Hz Response Time: Less than 0.5 ns Operating Temperature: -40°C to +50°C Refer to STFE100-10N (SOLA) or equivalent	SOLA	Pcs	1

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10	Power supply unit, Output 24VDC, 10A	Bộ nguồn 220/24VDC	SITOP PSU100S 24V/10A-6EP1334-2BA20	Input Voltage: 120 VAC (85...132 VAC) 230 VAC (170...264 VAC) Input Phase: Single Phase AC Frequency Range: 47-63 Hz Output Voltage: 24 VDC Adjustable Output Voltage Range: 22.8-28 VDC Rated Output Current: 10 A Output Current Range: 0-12 A Output Power: 288 W Refer to 6EP1334-2BA20 ( Siemens) or equivalent	Siemens	Pcs	1
11	2KV FLEXIBLE SINGLE CONDUCTOR, 777 MCM ARMORED & SHEATHED MARINE/OFFSHORE POWER CABLE (FOR POWER SWIVEL PS2-500A SERVICELOOP)	Cáp nguồn dùng cho Service Loop của Power Swivel PS2-500A	CFSPECIAL.572.4000.01 (IGUS)	Cable Type: Flexible Single Core Power Cable Installation Type: Continuous Flexing / Hanging Service Service Duty: Heavy Duty Continuous Motion Application Conductor Type: Fine Stranded Copper Conductor Conductor Standard: DIN EN 60228 Conductor Size: 1 x 400 mm <sup>2</sup> (777 kcmil) Core Insulation Material: High Quality TPE Compound Shield Type: Overall Braided Shield Shield Material: Tinned Copper Braid Shield Coverage: Approx. 70% Electrical / 90% Optical Outer Jacket Material: PUR (Polyurethane) Outer Jacket Properties: Oil Resistant; Abrasion Resistant; Bending Resistant Outer Jacket Type: Halogen-Free Low Adhesion PUR Reinforcement Type: High Tensile Strength Aramid Reinforcement Minimum Bend Radius (Dynamic): 10 x Cable Diameter Operating Temperature (Dynamic): -25°C to +80°C Maximum Travel Speed: 10 m/s Maximum Acceleration: 50 m/s <sup>2</sup> Flame Retardant: Yes Halogen Free: Yes UV Resistant: Yes Hydrolysis Resistant: Yes Coolant Resistant: Yes Microbe Resistant: Yes Reference by Code: CFSPECIAL.572.4000.01 ( IGUS) or equivalent	IGUS (Or equivalent)	FT	120
	<b>B.O.P SYSTEM</b>	<b>HỆ THỐNG ĐÓI ÁP</b>	<b>TYPE-80</b>		<b>KOOMEY</b>		
12	Flexible Control Cable, 16 AWG, 60 Core	Cáp điện mềm điều khiển đối áp (BOP)	SOOW 16/60	Flexible Control Cable, 16 AWG, 60 Core, Unarmored IEEE 1580 Type P MOR Polyrad XT-125, Flexible Multi-Conductor Control Cable, Unarmored, 16 AWG, 60 Cores, 600V/1000V, T-7874 (Item #: 254450 Cat #: 659400) Refer to SOOW 16/60 ( HuaDong) or equivalent	HuaDong	FT	250.00

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13	Signal Conditioner and Isolator - Bộ cách ly tín hiệu/Формирователь сигнала и изолятор	Bộ cách ly tín hiệu	2902019/ Or equivalent	Input 0-10V, Output 0-10V, Isolation 3000V, Voltage Supply 24V Reference by code 2902019 or equipvalent, Manufacturer: Phoenix Contact or equipvalent.	Phoenix Contact/ Or equivalent	PCE	2.00
14	Digital Display	Bộ hiển thị số	P1001/6-P-ANI-0-485-R-AC (Or equivalent)	6 DIGIT, 14,2 MM HIGH Input: Process Analogue Output: 4-20mA Alarm Outputs: 0 Data Interface: RS485 + Modbus ASCII Digit Colour: RED Powersupply: 95-265V AC PANEL MOUNTING Reference by Code P1001/6-P-ANI-0-485-R-AC or equipvalent Manufacturer: Vetec or equipvalent	Vetec (Or equivalent)	PCE	2.00
	<b>MAIN DIESEL ENGINE</b>	<b>MÁY DIESEL MÁY PHÁT CHÍNH</b>	<b>WARTSILA W9L20</b>		<b>WARTSILA</b>		
15	Power supply card C1 (DC/DC card)	Card nguồn điều khiển 24VDC	PAAE065774 (or 007370035 231003-003)	Card tín hiệu DC/DC cho máy phát DC/DC card 007370035 231003-003 for marine engine W20 9L20/7020 Tham khảo P/N: 231003 (WARTSILA) hoặc tương đương DC/DC Signal Card for Marine Generator Engine Part No.: 007370035 / 231003-003 Suitable for Marine Engine W20 9L20/7020 Refer to 231003 (WARTSILA) or Equivalent	WARTSILA	PCS	2
	<b>TWIN CEMENTING UNIT</b>	<b>MÁY BƠM TRÁM XI MẮNG</b>	<b>TWS 600</b>		<b>TECHZONE</b>		
16	Module NET, Flash card for SLC 500	Module mạng và thẻ nhớ	AB: PROSOFT MVI46-ADMNET - 1746-NET/ (Tehzone PN: X00-02-880).	Module NET, Flash card for SLC 500 Communication Protocol: Modbus TCP/IP Ethernet Port: 1 × RJ45, 10/100 Mbps Communication Modes: Modbus Client / Server Diagnostic Indication: Status LED Indicators Operating Temperature: 0°C to +60°C Mounting Type: Chassis / Rack Mount Refer to PROSOFT MVI46-ADMNET - 1746-NET/ X00-02-880 (AB/Techzone) or equivalent	AB	SET	1
17	PC-Flash 2GB industrial grade Compactflash (CF)	Thẻ nhớ CF Card 2GB, dùng trong công nghiệp	FCFI-02GB-3332	Product Type: Industrial Grade CompactFlash (CF) Card Storage Capacity: 2 GB Flash Type: SLC NAND Flash Interface Type: CompactFlash Type I Transfer Mode: Auto Detect DMA 2 Refer to FCFI-02GB-3332 (California PC FLASH) or equivalent	California or Eq	SET	2
18	Turbine flow sensor 3"	Bộ đo lưu lượng 3"	580-477-3067	Product Category: Liquid Flow Meters Product Name: Turbine Flow Meters Meter Technology: Electromagnetic; Turbine Operating Temperature:-100 to 300 F (-73 to 149 C) Process Media Type: Liquid Operating Pressure: 800 psi (563 m H2O) Meter Type: Volumetric Flow Meter Diameter: 3" Refer to TM0300 (Turbines) or equivalent	Turbines Inc.	SET	1

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19	Precision regulator - surge tank	Điều chỉnh áp suất - tank trộn	AF4001	Product Type: Surge Tank / Pulsation Dampener Working Pressure: 25 psig Maximum Supply Pressure: 150 psig Refer to 10R0200R / AF4001 (ACESEFI) or equivalent	ACESEFI	PCS	1
20	Electronic Hand throttle 24 VDC	Tay ga máy diesel bơm trám	(TZP-206-E5-12) MSC P/N 97229011	Product Type: Electronic Hand Throttle Operating Voltage: 24 VDC Output Type: Single Analog Output PWM Frequency: 500 Hz Control Signal: PWM Analog Control Refer to 97229011 /TZP-206-E5-12 (Caterpillar/ Techzone) or equivalent	Caterpillar	PCS	1
21	PanelView 10.4 Inch c/w program chip and Installation guide	Màn hình điều khiển HMI	2711P-K10C6D1	Revision: Series A, Rev D Display Size: 10.4 Inch Display Type: Color TFT LCD Input Type: Keypad Interface Supply Voltage: 24 VDC c/w program chip and Installation guide Refer to 2711P-K10C6D1 (Allen Bradley) or equivalent	Allen Bradley	pcs	1
22	Nadi solenoid valve model C13I18D1D/AP + Solenoid Coil Type 3050 (Voltage: 24VDC, ATEX/IECEX explosion-proof standard).	Van điện từ điều khiển	C13I18D1D/AP,Coil Type: 3050	24VDC, 0-10 bar. Coil Type: 3050 Solenoid 3/2 Universal, Body Stainless Steel AISI 316, Orifice: 1.8mm, 1/4" NPT, VITON (FKM) rubber diaphragm / sealing gasket,ATEX/IECEX explosion-proof standard. Refer to C13I18D1D (Nadi/ Mazzo Di Rho) or equivalent	Nadi/ Mazzo Di Rho (MI)	pcs	1
	<b>DECANTER CENTRIFUGE</b>	<b>MÁY LY TÂM DUNG DỊCH</b>	<b>MDE – 4566</b>		<b>MECSERVE</b>		
23	Analog module	Module tương tự	6ES7231-4HF32-0XB0	SIMATIC S7-1200, Analog input, SM 1231, 8 AI, +/-10 V, +/-5 V, +/-2.5 V, or 0-20 mA/4-20 mA, 12 bit+sign or (13 bit ADC)	Siemens	pcs	1
24	RS485 Communication Module	Module truyền thông	6ES7241-1CH32-0XB0	SIMATIC S7-1200, Communication module CM 1241, RS422/485, 9-pole D-sub (socket) supports Freepport	Siemens	pcs	1
25	Ethernet Switch, Switch IE 5 × RJ45 Ethernet Ports	Bộ chuyển mạch Ethernet	6GK5005-0BA00-1AB2	Number of Ports: 5 × RJ45 Ethernet Ports Ethernet Standard: IEEE 802.3 / 802.3u Data Transfer Rate: 10/100 Mbps Auto-Negotiation Power Supply: 24 VDC Connection Type: RJ45 Copper Ports Mounting Type: DIN Rail Mount Protection Class: IP20 Operating Temperature: 0°C to +60°C Refer to 6GK5005-0BA00-1AB2 (Siemens) or equivalent	Siemens	pcs	1
26	HMI 9" Comfort Panel, touch operation	Màn hình HMI 9"	6AV2 124-0JC01-0AX0 C-K8K25107 AC-61-17-25-7B-2A	SIMATIC HMI TP900 Comfort, Comfort Panel, touch operation, 9" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, Windows CE 6.0, configurable from WinCC Comfort V11 Refer to 6AV2 124-0JC01-0AX0 C-K8K25107 AC-61-17-25-7B-2A (Siemens) or equivalent	Siemens	pcs	1

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27	Inverter E1000: 400V; 3 PHASE; 15 KW , YASKAWA	Biến tần E1000: 400V; 3 PHASE; 15 KW , YASKAWA	CIMR-ET4A0031FAA,	Rated Input Voltage: 380 – 480 VAC Nominal Input Voltage: 400 VAC Input Phase: 3-Phase Input Frequency: 50/60 Hz Rated Motor Power: 15 kW (20 HP) Rated Output Current: 31 A Output Frequency Range: 0 – 400 Hz Control Method: V/f Control, Open Loop Vector Control, Closed Loop Vector Control (with encoder) Overload Capacity: 150% rated current for 60 seconds (Normal Duty) Refer to CIMR-ET4A0031FAA ( YASKAWA) or equivalent	YASKAWA	pcs	1
	<b>DRILLING AND RIG CCTV</b>	<b>HỆ THỐNG CAMERA KHOAN VÀ TOÀN GIẢN</b>	<b>NETWORK CCTV</b>		<b>HIKVISION</b>		
28	Ex Dome Camera	Camera cầu, chống nổ	DS-2DF4220-DX(S6/316L)	Explosion-proof Network speed Dome camera Ex Atex certificate. Supports H.265 video compression. 2MP, 1/2.8" CMOS sensor, 120dB WDR, Day&night: ICR, Pan range:360° endless; Tilt range: -0°~90°(Auto Flip), Optical zoom:20x, Focus:4.8-96mm, POE; Stainless steel 316L; Anti-Corrosion: NEMA 4X. IP68. Reference PN: DS-2DF4220-DX(S6/316L) (or equivalent), manufacturer: Hikvision (or equivalent).	HIKVISION	PCS	2
29	CCTV Monitor 21"	Màn hình CCTV 21"	DS-D5022FC-C	Screen Size: 21.5 Inch Display Type: Full HD LED Display Resolution: 1920 × 1080 Aspect Ratio: 16:9 Brightness: 250 cd/m <sup>2</sup> Contrast Ratio: 1000:1 Response Time: 5 ms Refer to DS-D5022FC-C (HIKVISION) or equivalent	HIKVISION	PCS	1
30	Cable VGA + USB to HDMI	Cáp chuyển đổi VGA+USB sang HDMI	unitek Y-8711	Input Interface: 1 × VGA Male 1 × USB 2.0 Type-A Male Output Interface: 1 × HDMI Female Supported Resolution: Up to 1920 × 1080p @ 60Hz Audio Support: USB Audio Transmission Video Conversion: VGA to HDMI Refer to Y-8711 (UNITEK ) or equivalent	UNITEK Or Eq	PCS	2
31	Signal cable HDMI 2.1 ACTIVE OPTICAL C1064SL	Cáp kết nối CCTV Monitor chuẩn HDMI	C1064SL	Product Type: HDMI 2.1 Active Optical Cable HDMI Standard: HDMI 2.1 Bandwidth: 48 Gbps (Optical) Supported Resolution: 8K @ 60 Hz 4K @ 144 Hz HDR Support: Yes Audio Support: Dolby 7.1, eARC Color Depth: 12-bit, 4:4:4 Color Space HDMI Ethernet Channel (HEC): Supported Refer to C1064SL (UNITEK ) or equivalent	UNITEK Or Eq	PCS	2

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32	Hard Drive HDD 4TB (Surveillance hard drive for CCTV DVR/NVR)	Ổ cứng chuyên dụng cho thiết bị giám sát, đầu ghi camera	DS-40HKVS-VX1	Surveillance Hard Disk Drive (HDD) Capacity: 4 TB Form Factor: 3.5 inch Interface: SATA III, 6.0 Gb/s (backward compatible with 3.0 Gb/s and 1.5 Gb/s) Rotational Speed: 5400 RPM Cache Memory: 128 MB Maximum Sustained Transfer Rate: 176.4 MB/s Refer to DS-40HKVS-VX1 Hikvision ) or equivalent	Hikvision	PCS	2
	<b>MAIN GENERATOR &amp; DIESEL ENGINE</b>	<b>MÁY PHÁT &amp; MÁY DIESEL CHÍNH</b>	<b>LSA 53 L95-6P</b>		<b>LEROY SOMER/Wartsila</b>		
	<b>WATER MAKER</b>	<b>MÁY LỌC NƯỚC NGỌT</b>	<b>ORCA-70</b>		<b>Alffa Laval</b>		
33	Profinet cable	Cáp profinet	6XV1850-2GE50	Cable Type: Shielded Twisted Pair (STP) Ethernet Standard: Industrial Ethernet / PROFINET Compatible Conductor Size: 2 × 2 Core Conductor Material: Copper Cable Length: 50 m Refer to 6XV1850-2GE50 ( Siemens) or equivalent	Siemens	set	1
34	Pressure Element incl. Transmitter	Bộ chuyển đổi áp suất	PMC51-5UD15/0	Pressure Element incl. Transmitter Cerabar M Order code: PMC51-5UD15/0; Ser. no.: S3011601128. Ext. order code: PMC51-AA12IA2KGBGCJA+LF; MWP: 12 bar, P = 0-2 bar abs, Output: 4 to 20 mA; Span: 0.1/2 bar. Supply voltage: 11.5 to 45 V DC; ex works FW: 01.00.01, Dev.Rev.: 1. Degree of protection: IP66/IP68. Reference by Code: PMC51-5UD15/0/RE (Endress & Hauser) or equipvalent	Endress & Hauser	set	1
35	Quartz Jacket 3056	Ống bao đèn	3056	Product Type: UV Quartz Sleeve 100% Equivalent to: Ueberall Aquafine UV 16277 Ueberall UB2-2 Quartz #3056 Total Length: 1205 mm Outer Diameter: 30 mm Material: High Purity Quartz Glass Refer to UB2-2 Quartz #3056 ( Trojan Technologie) or equivalent	Trojan Technologie	set	1
	<b>"MARINE GROWTH PREVENTING DEVICE" "CHLORINE ATTACKER -DS"</b>	<b>BỘ ĐIỆN PHÂN NƯỚC BIỂN</b>	<b>TYPE: CL-850DS MFG No: CL-850552</b>		<b>Y.D.K - JAPAN</b>		
36	Anode spec and material: JIS100A2t TI PT coating	Cực Anode bộ điện phân	JIS100A2t TI PT Coating	Anode Specification: JIS100A2t TI PT Coating Material: Titanium with Platinum Coating Corrosion Resistant Construction Suitable for Chlorination System Applications Refer to B-13882/08 ( Yokohama) or equivalent	Y.D.K - JAPAN	PCS	1

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37	DV Voltmeter 0-15V dc	Đồng hồ đo điện áp DC 0-15V	PMK-60C	Product Type: Analog Panel Meter Display Type: Analog Indication 0-15V DC Mounting Type: Panel Mount Measurement Type: Electrical Parameter Monitoring Scale Type: Direct Reading Scale Housing Material: Industrial Grade Plastic / Metal Housing Accuracy Class: Industrial Standard Accuracy Operating Frequency: 50/60 Hz Refer to PMK-60C ( Daiichi) or equivalent	Daiichi	PCS	1
38	DV Ammeter 0-200 A	Đồng hồ đo dòng điện DC 0-200A	PMK-60A	Product Type: Analog Ammeter Display Type: Analog Indication 0 ~ 200A/60mV Measurement Type: AC Current Measurement Mounting Type: Panel Mount Meter Size: 60 × 60 mm Scale Type: Direct Reading Scale Accuracy Class: Industrial Standard Accuracy Operating Frequency: 50/60 Hz Refer to PMK-60A ( Daiichi) or equivalent	Daiichi	PCS	1
39	Thyristor Module	Bộ Thyristor	PAT308	Dual Thyristor Module 66A/800V Isolated Base Dual Thyristors or Thyristor and Diode Anti-Parallel Circuit High Surge Capability UL Recognized, File No. E187184 AC phase control AC switch Refer to PAT308 (Nihon) or equivalent	Nihon	PCS	1
	<b>DATA MONITORING SYSTEM</b>	<b>HT GIÁM SÁT CÁC THÔNG SỐ HOẠT ĐỘNG GIÀN</b>					
	<b>JACKING SYSTEM</b>	<b>HT NÂNG HẠ GIÀN</b>	<b>B75</b>		<b>BLM/ NOV</b>		
40	Adjustable Roller Lever Limit Switch,	Công tắc giới hạn	GLAB20A1B (RS Stock No.: 311-2459)	Roller Lever Limit Switch, 2NO/2NC, IP67, DPDT, Die Cast Zinc Housing, 600V ac Max, 6A Max Reference by Code: GLAB20A1B (Honeywell) or equivalent	Honeywell	PCS	2
	<b>DECK CRANE</b>	<b>CẦU BOONG</b>	<b>6/10K</b>		<b>FAVELLE FAVCO</b>		
41	Power supply 24VDC 14.6A	Bộ nguồn 220/24VDC	S-350-24	Product Type: Switching Power Supply Input Voltage: 88–132 VAC / 176–264 VAC Selectable Input Frequency: 47–63 Hz Output Voltage: 24 VDC Rated Output Current: 14.6 A Rated Output Power: 350 W Output Voltage Adjustment Range: 21.6–28 VDC Refer to S-350-24 (Mean well) or equivalent	Mean well	PCS	1
	<b>AIR-COND CONDENSING UNITS</b>		<b>TYPE: 60F-50 . 2</b>		<b>CARRIER</b>		

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42	Central processing unit (CPU)	Bộ xử lý trung tâm Simatic S7-200	6ES7 214-1BD23-0XB0	Programmable Logic Controller (PLC) CPU CPU Model: CPU 224 Power Supply: 120/230 VAC Digital Inputs: 14 x 24 VDC Digital Outputs: 10 x Relay Outputs Relay Output Rating: 2 A per output Refer to 6ES7 214-1BD23-0XB0 (Siemens) or equivalent	Siemens	Pcs	1
43	Relay 40A, 230V	Role bảo vệ điện áp 220V	SVP-912-40A	Rated Current : 40A Rated voltage: 230V ( 50/60 Hz) Protection Functions: Over Voltage Protection Under Voltage Protection Automatic Recovery / Auto Reset Display Type: Digital LED Voltage Display Refer to SVP-912-40A (Sinotimer) or equivalent	Sinotimer	Pcs	2
	<b>STATION AIR COMPRESSORS</b>	<b>MÁY NÉN KHÍ CÔNG DỤNG CHUNG</b>	<b>MODEL: GA 90 CW</b>		<b>ATLAS COPCO</b>		
44	Display for Regulator MKIV ELII - B	Màn hình hiển thị cho bộ điều khiển máy nén khí Elektronikon II	TM164 AD	Supply Voltage: 3.0V DC (Typical) Backlight Type: LED Backlight Mounting Type: Panel Mount Operating Temperature: -20°C to +70°C Refer to TM164 AD (Tianma) or equivalent	Tianma	PCS	2
	<b>HOT WATER HEATER</b>	<b>BÌNH ĐUN NƯỚC NÓNG</b>	<b>No 72028/1</b>		<b>ORMANDY</b>		
45	Ormandy Electric Heaters: 380V; 5 KW	Điện trở đun bình đun nước nóng	45103 B08 9TB	Industrial Electric Heater Rated Voltage: 380V AC Rated Power Output: 5 kW Phase: Three Phase Frequency: 50/60Hz Refer to 45103 B08 9TB (Ormandy Electric Heaters) or equivalent	Duncombe road, Bradford BD8 9TB England	PCS	4
46	Temperature Relay	Rơ le nhiệt độ	FTST400K RS Stock No.: 348-144	Power 110- 220/240VAC; 50/60Hz; 5A Temp Sensor type K Temp range 0 → +400 °C Refer to FTST400K/ 348-144 (Tempatron/RS) or equivalent	Tempatron	PCS	2
	<b>LAUNDRY EQUIPMENT</b>	<b>THIẾT BỊ GIẶT LÀ</b>			<b>ELECTROLUX</b>		
47	Electrolux Professional Washer extractor W5180S	MÁY GIẶT	W5180S Mod 9867820182 (Or equivalent)	PNC: 9867820182 Obsolete: N Codification: A Model: W5180S Voltage supply: From 380 to 415 volt, Frequency: 50 Hz Phase: 3 phases with neutral Brand name: Electrolux Drum volume: 180 litres Control system: Compass Pro Heating: Mop/Farm elements 13kW wo. melt fuse	Electrolux/ (Or equivalent)	SET	1

STT	Tên VTTB (tiếng Anh)	Tên VTTB (tiếng Việt)	Ký mã hiệu	Đặc tính kỹ thuật	Nhà sản xuất	ĐVT	Số lượng
1	2a	2b	3	4	5	6	7
48	ELS Compass Control	Board cấp nguồn điều khiển máy giặt	Model: GEN6 -PSU P/N: 42387 10 51 Part name PSU ELS P/N: 43268 05 06 PTAB P/N: 44-7199-55	AC Input: 94 - 240VAC; 1.6A; 50 - 60Hz; AC Output: 94 - 240VAC; 1A; 50 - 60Hz Output: 9 VDC; 3A Refer to Model: GEN6 -PSU (Electrolux) or equivalent P/N: 42387 10 51 Part name PSU ELS P/N: 43268 05 06 PTAB P/N: 44-7199-55	Electrolux	PCS	1
49	TUMBLE DRYER 27,5 kg	MÁY SẤY QUẦN ÁO	SR 28 TP 2 E Or equivalent	Capacity (Kgs): 27,5 - 30,5 Dimensions (mm) : 985 x 1.054 x 1.975 Drum Volume (L) : 549 Energy: 380V/3P/50Hz Refer to SR 28 TP 2 E (Fagor/ Electrolux) or equivalent	Fagor/ Electrolux Or equivalent	PCS	1
	<b>MAIN AND EMEGENCY LIGHTING</b>	<b>HT CHIẾU SÁNG CHÍNH VÀ SỰ CỐ</b>					
	<b>ELECTRICAL AUXILIARY EQUIPMENT</b>	<b>THIẾT BỊ PHỤ KIỆN ĐIỆN</b>					
50	Wall Fan 3 Speeds, 88.6 m³/min	Quạt treo tường	TC1622	Rated Voltage: 220V AC / 50Hz Rated Power: 65W Blade Diameter: 39 cm Number of Blades: 7 Blades Air Flow Capacity: 88.6 m³/min Speed Settings: 3 Speeds Refer to TC1622 (Senko) or equivalent	Senko or Eq	PCS	4
51	MCB 3 cấp 32A - Миниатюрный автоматический выключатель с 2-я полюсами	Áp tô mát 3 pha	A9K24332 Schneider or eq	MCB 3P, 32A, 380/415Vac, 6kA, fixed type compliance with IEC 898, IEC 947-2; Curve C; Uimp= 6kV; for control and protection of circuits against overloads and short-circuits; Industrial or public network applications.c/w Auxiliary contact for MCB; iOF+iSD/iOF; Voltage release for MCB; iMX+iOF - tripping unit - 220..415VAC. Refer to model A9K24332/ Schneider or equal MCB 3P, 32A, 380/415Vac, 6kA, loại cố định tuân thủ IEC 898, IEC 947-2; Đường cong C; Uimp= 6kV; để kiểm soát và bảo vệ mạch chống quá tải và ngắn mạch; Ứng dụng trong mạng công nghiệp hoặc công cộng. Có tiếp điểm phụ trợ cho MCB; iOF+iSD/iOF; Bộ giải phóng điện áp cho MCB; iMX+iOF - đơn vị ngắt - 220..415VAC. Tham khảo mã: A9K24332/ Schneider hoặc tương đương.	Schneider	PCS	5
	<b>ENERGY MANAGEMENT SYSTEM</b>	<b>HỆ THỐNG GIÁM SÁT NĂNG LƯỢNG</b>			<b>PHUCNGUYEN</b>		
52	Compact CPU 1217C DC/DC/DC S7-1200	PLC CPU	ES7217-1AG40-0XB0	6ES7217-1AG40-0XB0 Siemens - SIMATIC S7-1200	Siemens	PCS	1
53	Power supply module 24Vdc/ 2.5A 60W - Module nguồn 24VDC/ Модули питания	Bộ nguồn 24VDC	6EP1332-1SH71	DIN rail switching power supply, input 120/230 VAC, output 24 VDC / 2.5 A, 60 W, suitable for SIMATIC S7-1200 PLC system. Reference PN: 6EP1332-1SH71 (Siemens) or equivalent	Siemens	PCS	1
54	Memory card, 24 MB, 3.3 V flash - Thẻ nhớ/ Карта памяти	Thẻ nhớ 24MB	6ES7954-8LF03-0AA0	For S7-1x00 CPU/SINAMICS	Siemens	PCS	1
55	COMMUNICATION Module CM 1241 RS422/485	Mô đun kết nối	6ES7241-1CH32-0XB0	SIMATIC S7-1200, COMMUNICATION MODULE CM 1241, RS422/485, 9 PIN SUB D (FEMALE) SUPPORTS MESSAGE BASED FREEMPORT	Siemens	PCS	1

STT	Tên VTTB (tiếng Anh)	Tên VTTB (tiếng Việt)	Ký mã hiệu	Đặc tính kỹ thuật	Nhà sản xuất	ĐVT	Số lượng
1	2a	2b	3	4	5	6	7
	<b>ELECTRIC MOTOR BEARING</b>	<b>VÒNG BI ĐỘNG CƠ ĐIỆN</b>			<b>SKF</b>		
56	Bearing SKF 6316-2Z/C3	Vòng bi động cơ	6316-2Z/C3	Dimensions Bore diameter (d): 80 mm Outside diameter (D): 170 mm Width (B): 39 mm Load Ratings Basic dynamic load rating (Cr): approx. 208 kN Basic static load rating (Cor): approx. 160 kN	SKF	PCS	6
<b>GIÀN TỰ NẶNG CẦU LONG</b>							
	<b>MAIN ENGINE: C175-16</b>	<b>MÁY DIESEL</b>	<b>C175-16</b>		<b>CATERPILLAR</b>		
57	Module Gp- Control (Temperature) for Cat C-175/ Bộ điều khiển nhiệt độ nước làm mát cho khí nạp (bên hông phải) - Регулятор температуры охлаждающей жидкости на впуске (правая сторона)	Bộ điều khiển nhiệt độ nước làm mát cho khí nạp (bên hông phải)	346-6780	Module Gp- Control (Temperature) for Cat C-175 ( right side) Monitors and regulates engine coolant temperature. Energy-efficient design for optimal power consumption. Enhances engine longevity and reliability. Refer to 346-6780 (Caterpillar) or equivalent	Caterpillar	EA	1
58	Harness As-Engine-RH for Cat C-175/ Cụm dây tổng bên phải (bao gồm toàn bộ phụ kiện) - Привязать как двигатель (справа)	Cụm dây tổng bên phải (bao gồm toàn bộ phụ kiện)	307-8719	Harness As-Engine-Rh for Cat C-175 Electrical Wiring Harness Assembly Function: Power and signal transmission between electrical and electronic components Construction: Pre-assembled cable harness with factory-installed connectors Refer to 307-8719 (Caterpillar) or equivalent	Caterpillar	EA	1
59	RTD 100 OHM Platinum 0.00385	Cảm biến nhiệt độ vòng bi máy phát	5141166218	Product Type: Air Temperature Detector Measurement Medium: Ambient Air / Intake Air Output Signal: Compatible with Generator Monitoring System Response Time: Fast Response for Temperature Changes Refer to 5141166218 (Kato Engineering) or equivalent	Kato Engineering	pce	3
60	5.7-Inch Lcd Display Panel for Cat C-175/ Tấm nền LCD 5.7-inch 640*480 resolution TN TFT display module - ЖК-дисплей	Tấm nền LCD	ET057002DM6	Display Size: 5.7 Inch Resolution: 320 × 240 Pixels (QVGA) Display Technology: TFT Active Matrix LCD Interface: Parallel RGB Display Colors: Up to 262K Colors Backlight Type: LED Backlight Input Voltage: 3.3 VDC (Typical) Refer to ET057002DM6 (Auto Maskin) or equivalent	Auto Maskin	pce	2
	<b>FILTER OIL MACHINES</b>	<b>MÁY LỌC DẦU</b>	S815 (Alfa Laval)		<b>ALFA LAVAL</b>		
61	Operator panel c/w programme	Màn hình HMI (đã cài chương trình)	580986 01	Pannel Firmware V1.40 Type : EPC60 Model : 4B1260.00 - K07 Rev : IO Refer: 580986 01 Manufacturer: Alfa Laval	Alfa Laval	pcs	1
	<b>GENERATOR'S FUEL &amp; POWER SUPERVISER</b>	<b>GIÁM SÁT NHIÊN LIỆU</b>					

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1	2a	2b	3	4	5	6	7
62	Compact CPU 1217C DC/DC/DC S7-1200	Bộ vi xử lý	6ES7217-1AG40-0XB0	2 PROFINET ports onboard I/O: 10 DI 24 V DC; 4 DI RS422/485; 6 DO 24 V DC; 0.5A; 4 DO RS422/485; 2 AI 0-10 V DC, 2 AO 0-20 mA Power supply: DC 20.4-28.8V DC, Program/data memory 150 KB	Siemens	pcs	1
63	Module CM 1241 RS422/485	Mô đun truyền thông	6ES7241-1CH32-0XB0	SIMATIC S7-1200, Communication module CM 1241, RS422/485, 9-pole D-sub (socket) supports Freoport	Siemens	pcs	1
64	Memory Card 24 MB for S7-1X00 CPU/SINAMICS	Thẻ nhớ	6ES7954-8LF03-0AA0	3,3 V FLASH, 24 MBYTE	Siemens	pcs	1
	<b>CRANES ON MAIN DECK</b>	<b>CẦU MẶT BOONG</b>	<b>5/10K &amp; 6/10K</b>		<b>Favelle Favco</b>		
	<b>AIR COMPRESSORS</b>	<b>MÁY NÉN KHÍ</b>	<b>GA 110-125</b>		<b>ATLAS COPCO</b>		
65	Compressor controller ekelectronikon c/w program	Bộ điều khiển chương trình máy nén khí	1900 0710 32	Compressor controller ekelectronikon c/w program Volts Supply : 24 Vac, 28 Va. Relay Outputs: 250 Vac Refer to 1900 0710 32 (Atlas Copco) or equivalent	Atlas Copco	pcs	1
	<b>SCR CUBICLE</b>		MODEL: 1600 (ROSS HILL CONTROL CORPORATION)				
66	DC Control Module: Motor - Series	Bộ điều khiển SCR	10050155-001	Schematic: 0522-2400-00. DW LIMIT: 1100A; RT LIMIT: 50-800A; MP1 LIMIT: 1600A; MP2 LIMIT: 1600A; MP3 LIMIT: 1600A; SPECIAL MOD: MP1;MP2;MP3 DUAL MOTOR Refer to 10050155-001 (NOV) or equivalent	NOV	pcs	1
	<b>DC MOTORS</b>	<b>ĐỘNG CƠ MỘT CHIỀU</b>	<b>GE752</b>		<b>GE</b>		
67	DC motor Bearings (Roller Bearing)	Vòng bi động cơ DC	558320.03.ZL	Bearing Type: Cylindrical Roller Bearing Operating Duty: Continuous Service Dimension: 215x100x47 mm Reference by Code: 558320.03.ZL/8864951P119 ( FAG/GE) or equivalent	FAG	pcs	8
68	AC Drilling motor Bearing, roller bearing - Vòng Bi/Подшипник	Vòng bi động cơ DC	558830.03.ZL	Bearing Type: Cylindrical Roller Bearing Size: 130*280*58mm Weight:15.2kg Application: Radial Load Reference by Code: 558830.03.ZL/8864951P167 ( FAG/GE) or equivalent	FAG	pcs	8
	<b>TOP DRIVE SYSTEM</b>	<b>HỆ THỐNG ĐIỀU KHIỂN ĐỘNG CƠ KHOAN - TOP DRIVE</b>	<b>PS2-500/500</b>		<b>National oilwell</b>		
69	Bearing for Topdrive motor	Vòng bi động cơ Topdrive	558830CM	Bore Diameter (d): 150 mm Outside Diameter (D): 320 mm Width (B): 65 mm Refer to 558830CM (FAG) or equivalent	FAG	pcs	1
70	Bearing for Topdrive motor	Vòng bi động cơ Topdrive	6326M/C3	Bore Diameter (d): 130 mm Outside Diameter (D): 280 mm Width (B): 58 mm Refer to 6326M/C3 (SKF) or equivalent	SKF	pcs	1

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1	2a	2b	3	4	5	6	7
71	Module, Power Swivel Control	Mô đun điều khiển động cơ Topdrive	2032568-4	Application: Power Swivel Drilling Systems Function: Monitoring and Control of Power Swivel Operation Communication Interface: Compatible with NOV Control Systems Operating Duty: Continuous Industrial Service Refer to 2032568-4 (NOV) or equivalent	NOV	ea	1
72	Wire Rope Cable Clip Clamp U 3/8"M10, 304 Stainless Steel	Cốc kẹp cáp thép chịu lực tuyến cáp điều khiển Topdrive	3/8"M10	3/8 inch M10 Wire Rope Cable Clip Clamp U, 304 Stainless Steel Reference by Code: 3/8"M10 (Cozihom) or Equivalent	Cozihom	pcs	50
73	Wire Rope Cable Clip Clamp U 1/2"M12, 304 Stainless Steel	Cốc kẹp cáp thép chịu lực tuyến cáp điều khiển Topdrive	1/2"M12	1/2 inch M12 Wire Rope Cable Clip Clamp U, 304 Stainless Steel Reference by Code: 1/2"M12 (Cozihom) or Equivalent	Cozihom	pcs	50
	<b>BAYLOR BRAKE</b>	<b>PHANH ĐIỆN TÔI KHOAN</b>	BAYLOR #7838				
74	Signal Surge Protector	Bộ bảo vệ chống xung tín hiệu	SL1-G90	Number of lines: 1 line Modes of protection: Transverse and Common Maximum continuous voltage (DC) 90V Maximum discharge current (8/20 μs) 5kA Impulse durability C2 10x8/20μs 5kA Impulse durability D1 2x10/350μs 2.5kA AC durability 5x1s 1A rms Overstressed fault mode Mode 3 Response time w <5ns Reference by Code: SL1-G90 (Novaris) or Equivalent	Novaris	ea	3
75	Combined Signal Line and Power Protector	Bộ bảo vệ đường tín hiệu và nguồn điện kết hợp	SLC-36	Number of lines: 1 pair Modes of protection: Transverse & Common Maximum continuous voltage (DC): 36V Maximum continuous voltage (AC): 24V Maximum discharge current (8/20 μs): 10kA Maximum common mode discharge current (8/20 μs): 20kA Maximum discharge current (10/350 μs) 2.5kA Maximum common mode discharge current (10/350 μs): 5kA Impulse durability C2 10x8/20μs: 10kA Impulse durability D1 2x10/350μs: 5kA Maximum load current: 500mA AC durability 5x1s: 1Arms Response time: <5ns Reference by Code: SLC-36 (Novaris) or Equivalent	Novaris	ea	3
	<b>IRON ROUGHNECK - AR3200</b>	<b>NGƯỜI MÁY VẬN CẢN AR3200</b>	<b>AR3200</b>		<b>NOV</b>		
76	Selector Switch, 3 Position	Công tắc lựa chọn 03 vị trí	800H-JR2B	Type: KB7 Cam, 3 Position, Selector Switch Standard Contacts: 2NO/2NC Contact Rating: 10A Size: 30 mm Color: Black/White Material: Plastic IP/NEMA Rating: NEMA 4X, NEMA 13, NEMA 4 Reference by Code: SLC-36 (Allen - Bradley) or Equivalent	Allen - Bradley	pcs	5

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1	2a	2b	3	4	5	6	7
77	Selector Switch, 3 Position, NON ILLUMINATED, 2 CONTACT BLOCK 1NO/1NC	Bộ công tắc 3 vị trí	800H-JR2A	800H PB,30mm Selector Switch,3 Position,Standard Knob Maintained,Standard Knob Maintained,Standard KB7 Cam,1 NO 1 NC Standard Contacts,1 NO 1 NC Standard Contacts, 2 contact blocks Contact Rating: 10 A at 230 VAC Reference by Code: 800H-JR2A or Equivalent Manufacturer: Allen - Bradley	Allen - Bradley	Pcs	4
	<b>CEMENT TWIN UNIT</b>	<b>MÁY BƠM TRÁM XI MĂNG</b>	TZCMT-950C		TECHZONE		
78	Panelview 10,4", 24Vdc	Màn hình HMI	2711P-RDK10C	Input Power: 24Vdc Backlight: CCFL, 50,000 hours min at 25 ° C (77 °F) Display Size: 10.4 inches Display Area: 211 x 158 mm (8.3 x 6.2 in.) Resolution: 640 x 480 Series: PanelView Plus Module Type: Display Module Input Type: Keypad Compatible Terminal: 1000 Model EnclosureType 12, 13, 4X, IP65 or IP54 Reference by Code: 2711P-RDK10C (Allen - Bradley) or Equivalent	Allen - Bradley	Pcs	1
	<b>MD TOTCO DRILLING PARAMETERS MEASUREMENT SYSTEM</b>	<b>HỆ THỐNG ĐO THÔNG SỐ KHOAN MD TOTCO</b>	<b>220492-005</b>		MD TOTCO		
79	Pressure Transmitter 7500 PSI	Cảm biến áp suất bơm khoan	PTX5012-TA-A1-CA-H0-PA	Pressure range: 0-7500 Psi Electrical output : 4-20 mA Supply Voltage: 7 to 32 Vdc Accuracy: industrial Press connection : G1/4 female Cable length: 1m Reference by Code: PTX5012-TA-A1-CA-H0-PA (Druck LTD) or Equivalent	Druck LTD	pcs	2
	<b>DRILL FLOOR CAMERA SYSTEM</b>	<b>CAMERA SÀN KHOAN</b>			<b>Hikvision</b>		
80	Network keyboard Hikvision	Bàn điều khiển Camera IP Speed Dome	DS-1100KI	Integrated 7" touchscreen with 800x480 resolution, allowing live or recorded viewing of a single camera on the screen. Allows recording of images and audio via USB port. Requires a 3-axis joystick. Communication ports: 1 RJ45 port, 1 RS485 port, 1 RS232 port, 1 USB port (for data extraction), 1 Audio IN port, 1 Audio OUT port. Supports 15 users, each allowed to control 256 devices. Compatible with IP cameras, DVRs, DVSS, PC-DVRs, etc. Power supply: 12VDC	Hikvision	pce	1

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1	2a	2b	3	4	5	6	7
81	Surge Protective Device for LAN	Thiết bị chống sét mạng LAN	WTH-SG/RJ45-G	Thiết bị chống sét lan truyền đường tín hiệu internet, Dòng cắt xung sét I <sub>max</sub> (8/20 $\mu$ s) 20KA, Lắp trên Din rail. Tham khảo mã: WTH-SG/RJ45-G hoặc tương đương, NSX: Watchfulleye hoặc tương đương Surge Protection Device (SPD) for Ethernet/Internet Signal Line, maximum surge discharge current I <sub>max</sub> (8/20 $\mu$ s): 20 kA, suitable for DIN rail mounting. Reference Model: WTH-SG/RJ45-G or equivalent Manufacturer: WatchfulEye or equivalent.	Watchfulleye	pce	6
82	Monitor 23.8" 2K QHD	Màn hình hiển thị	E2424HS FHD	Input: 240 Vac, 50/60 Hz. Screen size: 23.8 inches Resolution: Full HD (1920x1080) Response time: 5 ms Refresh rate: 60 Hz Brightness: 250 cd/m <sup>2</sup> Contrast ratio: 3000:1 Ports: 1 x VGA / 1 x DisplayPort 1.2 / 1 x HDMI Reference by Code: E2424HS FHD or equipvalent Manufacturer: Dell or equipvalent	Dell	pcs	2
	<b>FIRE &amp; GAS ALARM SYSTEM</b>	<b>HỆ THỐNG BÁO CHÁY</b>	116-BS-420-G2/GB-G		Autronica/Norway		
83	FL SWITCH SFNB 8TX (Switch 8 port)	Bộ chia port Ethernet	2891002	Ethernet switch, 8 TP RJ45 ports, automatic detection of data transmission speed of 10/100 Mbps (RJ45), autocrossing function Power supply: 9-32Vdc Refer: 2891002 or Equivalent Reference by Code: 2891002 (Phoenix Contact) or equipvalent	Phoenix Contact	pcs	2
	<b>WELDING MACHINE</b>	<b>MÁY HÀN</b>	MODEL: 652		<b>Miller</b>		
84	Control PC Board for Miller Dimension 652	Bộ điều khiển máy hàn	187834	Control Circuit Card Assembly is compatible with KK129842 Dimension™ 652 model arc welding power source. Control Circuit Card Assembly (PCB) Frequency Version: 60 Hz Reference by: 187834 (Miller) or equipvalent	Miller	Pcs	1
	<b>NAVIGATION SIGNAL LIGHTING</b>	<b>ĐÈN TÍN HIỆU HÀNG HẢI</b>	<b>Model: 70M</b>		Aqua Signal		
85	70M STERN WHITE 135 W/O BULB	Đèn tín hiệu hàng hải chuyên dụng màu trắng	3582700000	Navigation Light - Double Signal White Output angle (°): 135 IP classification: 56 Minimum Voltage (VAC): 110 Maximum voltage (VAC): 230 Number of lamps: 2 Lamp base: P28s Main body material: Polycarbonate Body colour: BL - Black Detail material: Fibreglass plastic Cable gland: M24 Number of cable glands: 2 Reference by: 3582700000 (Aqua Signal) or equipvalent	Aqua Signal	ea	1

STT	Tên VTTB (tiếng Anh)	Tên VTTB (tiếng Việt)	Ký mã hiệu	Đặc tính kỹ thuật	Nhà sản xuất	ĐVT	Số lượng
1	2a	2b	3	4	5	6	7
86	70M STARBOARD GREEN 112.5 W/O BULB	Đèn tín hiệu hằng hải chuyên dụng màu xanh	3583100000	Navigation Light - Double Signal Green Output angle (°): 112.5 IP classification: 56 Minimum Voltage (VAC): 110 Maximum voltage (VAC): 230 Number of lamps: 2 Lamp base: P28s Main body material: Polycarbonate Body colour: BL - Black Detail material: Fibreglass plastic Cable gland: M24 Number of cable glands: 2 Reference by: 3583100000 (Aqua Signal) or equipvalent	Aqua Signal	ea	1
<b>WATER HEATERS</b>							
87	Heating element 9KW	Tên nhiệt bình đun nước sinh hoạt	APR11	Voltage: 440V; 60Hz; 3 phase Power: 9KW Thread diameter: 58mm Number of element: 3 Length: 400mm Reference by Code: APR11 (Loyal) or equipvalent	Loyal/ Viet Nam	Pcs	6
<b>LIGHTING SYSTEM</b>		<b>HỆ THỐNG CHIẾU SÁNG</b>					
88	LED Explosion protected Lighting Fixture	Bộ đèn LED chống cháy nổ chuyên dụng cho môi trường biển	VLL-5L-57-EM1-2/6-220-N	IECEX-certification of conformity: IECEX NEP 21.0020X, SEV 22 ATEX 0584X Ex Marking: Ex eb mb IIC T5 Gb or Ex db eb mb IIC T5 Gb / Ex db eb ib mb IIC T5Gb (EM)* Ex tb IIIC T80°C Db Ambient temp: -40°C to 55°C (Normal) -25°C to 45/50°C (Emergency) Rated input volt: 100-240VAC 50/60Hz, DC 105-250V Power factor: >0.9 Color Temperature: 5700K as standard, 3000K,4000K,5000K is available. CRI: Cool white>70 as standard, CRI>80 is optional System watt*: <56W VLL Lumen output: 6400Lm Material: GRP and PC Weight: 7.5Kg Entry Size: M20 as standard, M25 is available. Out line dimension: 1333x178x125 Backup duration & Lumen percentage: Standard version EM1=1.5h,25% output. IP(IEC60598): IP66 Reference by: VLL-5L-57-EM1-2/6-220-N (CROUSE-HINDS) or equipvalent	CROUSE-HINDS	Pcs	12
89	Tridonic ZRM 4.5-ES/C Superimposed-Pulse Ignitor	Bộ kích đèn pha	ZRM 4.5-ES/C	Voltage: 198–264V Frequency: 50–60 Hz Ignition voltage: 4.0–5.0 KV Lamp power: 35–400W Starting current (approx.): 120mA	Tridonic	pcs	20

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1	2a	2b	3	4	5	6	7
	<b>PROTECTION EQUIPMENT</b>	<b>THIẾT BỊ BẢO VỆ</b>					
90	Trip unit, 3 poles, electronic basic protections, 250A rating	Bộ bảo vệ ngắn mạch	C2532D250	3 poles, electronic basic protections, 250A rating, [Ue] rated operational voltage 690 V AC 50/60 Hz, [Ir] long-time protection pick-up adjustment range 100...250 A Reference by Code: C2532D250 (Schneider) or equivalent	Schneider	pcs	1
91	Trip unit MicroLogic 2.2, ComPacT NSX100/160/250, 3 poles, electronic basic protections, 100A rating	Bộ bảo vệ ngắn mạch	C1032D100	3 poles, electronic basic protections, 100A rating, [Ue] rated operational voltage 690 V AC 50/60 Hz, [Ir] long-time protection pick-up adjustment range 40...100 A Reference by Code: C1032D100 (Schneider) or equivalent	Schneider	pcs	1
	<b>BEARINGS</b>	<b>VÒNG BI</b>					
92	Bearing 6202-ZZ/C3	Vòng bi	6202-ZZ/C3	Đường kính lỗ/ Bore diameter: 15.00 mm - Đường kính ngoài/ Outside diameter: 35.00 mm - Chiều rộng/ Width: 11.00 mm - Nắp chắn kim loại hai bên vòng bi/ Metal Shields on Both Sides of Bearing	SKF	pcs	6
	<b>GIÀN MMWU</b>						
	<b>MAIN GENERATOR</b>		3412C		CAT		
93	Coolant Sensor	Cảm biến	102-0050	Supply Voltage: 8 VDC regulated Thread Size: 1/2-14 NPTF Overall Length: 34.5 mm (1.36 in) Connector Type: 3-Pin DT Connector Reference by: 102-0050 (CAT) or equivalent	CAT	pcs	1
94	Rack Sensor	Cảm biến	3E-0445	Product Type: Rack Position Sensor Alternative Description: Fuel Injection Governor Sensor Function: Monitors the position of the fuel rack/governor and provides feedback to the engine control system for accurate fuel delivery control. Reference by: 3E-0445 (CAT) or equivalent	CAT	pcs	1
	<b>SCR CONTROL HOUSE</b>		M1000 SCR		NOV		
95	MCB	Áp tô mát	3VU1340-1NJ00	Number of Poles: 3-pole Thermal Overload Setting Range: 3.2 – 5.0 A Rated Current (Max.): 5 A Short-Circuit Breaking Capacity (Icu): 100 kA at 415 VAC Rated Operational Voltage (Ue): Up to 690 VAC Rated Frequency: 50/60 Hz Reference by: 3VU1340-1NJ00 (SIEMENS) or equivalent	SIEMENS	pcs	1
96	Temperature sensor (range 150°C)	Cảm biến nhiệt	EKS 111	Range 150°C. Protect tube diameter: 6mm. Protect tube length: 30mm. Stainless steel. Sensor element type: PTC. Sensor element resistance: 1000 Ohm. Cable type: PVC 2 wire 1.5m. Enclosure rating IT: IP67. Reference PN: EKS111 (or equivalent), manufacturer: Danfoss (or equivalent)	Danfoss	pcs	2
	<b>ELECTRIC CRANE</b>		EC "RL" 500		EMS		
97	Bộ nguồn một chiều 24VDC, 20 A/ Блок питания 24VDC 20 A/Power supply 24VDC, 20A	Bộ nguồn	SP-500-24	Input: 100 – 230 VAC, 50Hz. Output: 24Vdc, 20A Reference by: SP-500-24 (MEANWELL) or equivalent	MEANWELL	pcs	1

STT	Tên VTTB (tiếng Anh)	Tên VTTB (tiếng Việt)	Ký mã hiệu	Đặc tính kỹ thuật	Nhà sản xuất	ĐVT	Số lượng
1	2a	2b	3	4	5	6	7
98	PCBA	Bộ điều khiển	PCB 4205-102 Rev B	Firmware Version: BOOT V1.03 Product Type: Processor Board / Main Control PCB Application: Safe Load Indicator (SLI) / Rated Capacity Indicator (RCI) System Function: Central processing and control board for crane load monitoring and overload protection systems Reference by: PCB 4205-102 Rev B (ROBWAY) or equivalent	ROBWAY	pcs	1
99	Angle sensor	Cảm biến đo góc	ANGES4130	Angle 0-90° 1-3V Exd 5VDC supply voltage. Hazardous Area systems with Enclosure type Ex d IIC. Reference PN: ANGES4130 (or equivalent), manufacturer: Robway (or equivalent)	ROBWAY	pcs	1
<b>LIGHTING SYSTEM</b>							
100	Outdoor High Efficient Floodlight LED lighting fixture with electronic driver	Đèn pha led	ELL601-240	AC100 – 240V, 50/60Hz Công suất: 240W Chống thấm: IP66 Đèn chống cháy nổ Led với 2 màu ánh sáng: 4700k (Trung tính)/ 7000k (Màu trắng) Nơi dễ gây nổ: Nhóm IIB, IIIC Tiêu chuẩn phòng nổ: Ex db IIB+H2 T6/T5 Gb PF >= 0.9 – CRI > 80	Paragon	pcs	2
<b>POWER BANK BRAKE SYSTEM</b>							
101	BALLUFF EXPLOSION PROOF LINEAR TRANSDUCER	Cảm biến hành trình piston	BLT5 E50 M0305 J DEXC TA12	ROD TYPE, 305MM STROKE Supply:24VDC Signal out: 4-20mA	BALLUFF	pcs	1
<b>PLUG &amp; SOCKET</b>							
102	Industrial connector Female socket 1000V; 1100A	Giắc nối cáp điện	EX-15-4-16-20-332SN	1000V; 1100A; REV.A Contact Gender: Female Socket (S) Termination Type: Crimp Contacts (N) Cable Entry: Basket Weave Cable Grip Connector Type: Circular Multipin Connector Environmental Protection: IP68 Hazardous Area Certification: ATEX Ex d IIC and IECEx certified Reference by: EX-15-4-16-20-332SN (Amphenol) or equivalent	Amphenol	pcs	1
103	Industrial connector Male socket 1000V; 210A	Giắc nối cáp điện	EX-13-4-16-20-332PN	1000V; 210A; REV.A Contact Gender: Male Pin (P) Termination Type: Crimp Contacts (N) Connector Body Material: Aluminum alloy with hard anodized finish Coupling Style: Threaded coupling Ingress Protection: IP68 Hazardous Area Certification: ATEX and IECEx certified for Zone 1 hazardous areas Explosion Protection: Ex d IIC Reference by: EX-13-4-16-20-332PN (Amphenol) or equivalent	Amphenol	pcs	1
<b>FIRE GAS SYS</b>							
			T1200		TYCO		

STT	Tên VTTB (tiếng Anh)	Tên VTTB (tiếng Việt)	Ký mã hiệu	Đặc tính kỹ thuật	Nhà sản xuất	ĐVT	Số lượng
1	2a	2b	3	4	5	6	7
104	Explosion proof Strobe Light	Đèn tín hiệu báo cháy	22496302	Flash Energy: 15 Joules Rated Voltage: 24 VDC Current Consumption: 1 A Operating Mode: Continuous operation Ingress Protection: IP66 / IP67 Reference by: 22496302 (FHF) or equivalent	FHF	pcs	1
105	Explosion proof Strobe Light dSLB 20 Yellow	Đèn báo khí CH4	22496303	Flash Energy: 15 Joules Rated Voltage: 24 VDC Current Consumption: Approx. 1 A Flash Frequency: Approx. 1 Hz (60 flashes/minute) Operating Mode: Continuous Duty Lens Color: Amber (Yellow) Ingress Protection: IP66 / IP67 Reference by: 22496303 (FHF) or equivalent	FHF	pcs	1
	<b>BOP</b>		0511-100254-01		CAD		
	<b>CAMERA SYSTEM</b>		HIKVISION		HIKVISION		
105	Ex Dome Camera	Camera phòng nổ	DS-2DF4220-DX(S6/316L)	Explosion-proof Network speed Dome camera Ex Atex certificate. Supports H.265 video compression. 2MP, 1/2.8" CMOS sensor, 120dB WDR, Day&night: ICR, Pan range:360° endless; Tilt range: -0°~90°(Auto Flip), Optical zoom:20x, Focus:4.8-96mm, POE; Stainless steel 316L; Anti-Corrosion: NEMA 4X. IP68. Reference PN: DS-2DF4220-DX(S6/316L) (or equivalent), manufacturer: Hikvision (or equivalent)	HIKVISION	pce	1
106	Video NVR 8 chanel	Bộ điều khiển	DS-7608NI-M2	H.265+/H.265/H.264+/H.264 video formats. 8-ch IP camera inputs up 8 MP decoding capacity. Up to 128 Mbps incoming bandwidth. HDMI +VGA. Network interface Rj45 10/100/1000Mbps. SATA up to 16TB capacity. Reference PN: DS-7608NI-M2 (or equivalent), manufacturer: Hikvision (or equivalent)	HIKVISION	pce	1