What is potential hazard during handling Spooling Device

- Hose burst
- High tension wire

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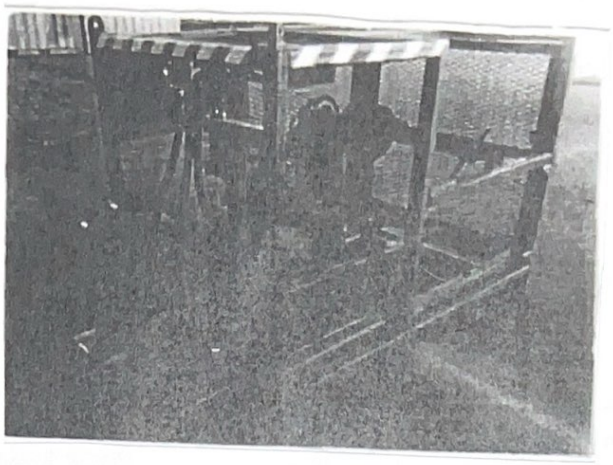
Draw & name each part of Spooling Device



- spooler drum
- Drive spocket
- pre-set spooling
- Double brake in parrallel.

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B.9. CONTROL PANEL

What is Control Panel

In slickline operations, a control panel is used to monitor and control slickline equipment. It features displays for real-time data, buttons and switches for operating the equipment, and alarms for safety.

What is the purpose of Control Panel

- Control Panel (CP) – To operate BOP rams
- Single Well Control Panel (SWCP) – To operate Master Valve and SCSSV
- Well Control Panel (WCP) – An integrated CP that can operate BOP, Stuffing Box, MV & SCSSV

How to operate Control Panel

- Function tested SWCP
- Connected SWCP line to SSV/TR-SCSSV
- Pressure tested up to 500 psi above the pre-set operating pressure of the SSV
- If no leak, Set SSV to 2000 psi and TR-SCSSV to 3800 psi
- Switch station control to SWCP
- Depressurized station control SSV/TR-SCSSV
- Observed no communication between SWCP and station control
- Depressurized air supply to SWCP. Observed for 10 mins
- SSV/TR-SCSSV remained at 2000 psi/3800 psi respectively.
- Open back the air supply. Swab valve and SSV remained closed position

What is maintenance required for Control Panel

Maintenance

- Daily: Check hydraulic fluid level
- Monthly: Disassembly air, filter and clean thoroughly
- Yearly: Renew hydraulic tank and return filters, disassembly hydraulic pump, check for corrosion and wear

What is safety precaution required for Control Panel

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- Check hydraulic level through the level indicator
- The airline filter is drained
- Ensure that all air valves are OFF
- Ensure that all needle valves and air regulators are CLOSE
- Hand pump relief valves are CLOSED
- Check all tubing, fittings etc., for any signs of damage. Replace as necessary

What is potential hazard during handling Control Panel

- Electrical shock from exposed wiring or faulty components.
- Equipment malfunctions due to incorrect use or damage.
- Overloading circuits if not properly managed.
- Injury from moving parts or sudden equipment movements.

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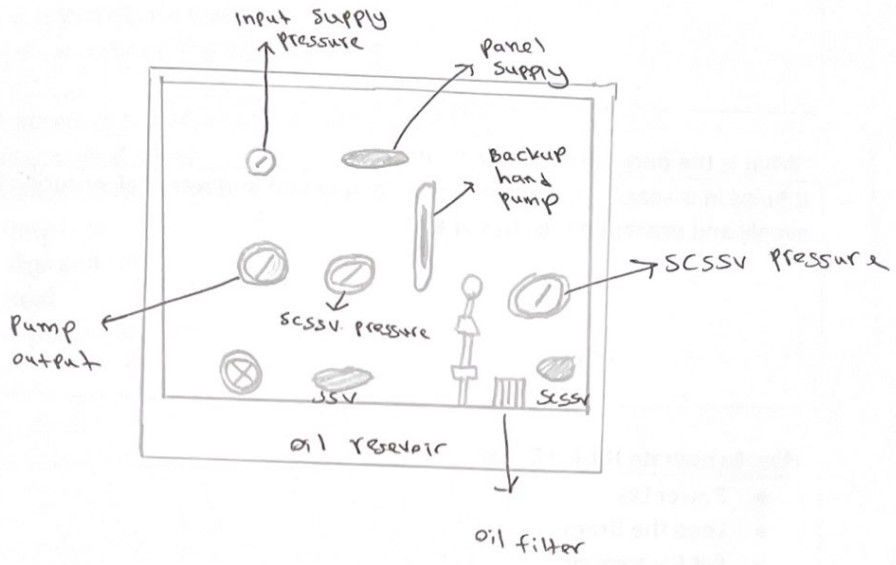
Draw & name each part of Control Panel



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B.10. HUSKEL DRUM

What is Huskel Drum

A Huskel drum is a type of drum used in slickline operations, specifically for spooling and storing the slickline cable.

What is the purpose of Huskel Drum

It helps in managing the cable during deployment and retrieval, ensuring it is wound evenly and preventing tangles or kinks.

How to operate Huskel Drum

- Power Up
- Load the Drum
- Set Parameters
- Calibration
- Start Recording
- Monitor Operation
- Stop and Store Data
- Shutdown

What is maintenance required for Huskel Drum

- Inspection
- Cleaning
- Lubrication
- Calibration
- Functional Testing
- Component Replacement

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What is safety precaution required for Huskel Drum

- Read the Manual
- Wear Protective Gear
- Check Connections
- Inspect Equipment
- Avoid Overloading
- Proper Training
- Emergency Stops
- Keep Workspace Clear
- Follow Lockout/Tagout Procedures

What is potential hazard during handling Huskel Drum

- Mechanical Injury
- Heavy Lifting
- Data Loss
- Slips and Falls
- Heat
- Exposure to Hazardous Materials

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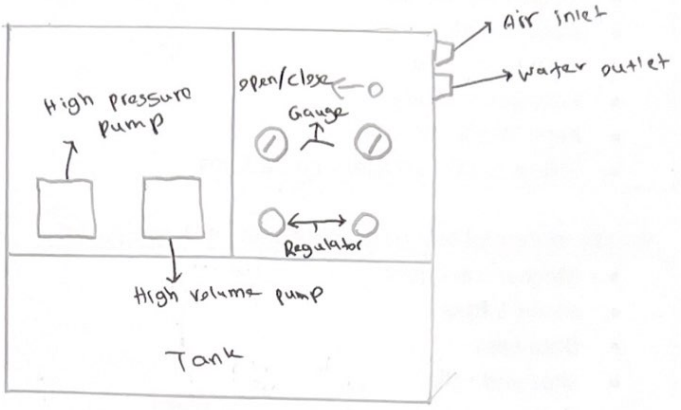
Draw & name each part of Huskel Drum



3/10/24

B.11. POWER PACK (ELECTRICAL & DIESEL)

What is Power Pack

Power Pack is a single piece configuration, skid mounted with integral crash frame, constructed in carbon steel with single point lifting.

What is the purpose of Power Pack

Function: To supply driving hydraulic power to equipment (Mast and RSU).

How to operate Power Pack

Starting procedure:

- Keep engine stop cable fully "IN" which is mounted on the control panel.
- Keep diesel cut off valve in start position.
- Keep winch unit drum directional control valve in neutral or center position.
- Start engine by pulling and holding inlet Overspeed shut down valve and depressing the foot/pedal starter switch.
- Keep and continue holding the inlet Overspeed shut down valve (approx. 10 sec.) until oil pressure is built.
- Release foot/pedal switch and the inlet Overspeed shut down valve.

Notes: See section 7 for POW-R-QUIK hydraulic starting system details.

What is maintenance required for Power Pack

Three Monthly	Check action of air inlet shut down valve. Check all pipe work for damage. Replace if necessary. Tighten all pipe.
Six Monthly	Check operation of various sensors.
Yearly	Carry out full calibration of all sensors upon every certification of equipment.

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What is safety precaution required for Power Pack

- Check hydraulic tank suction line ball valve is fully open.
- Check hydraulic oil level in hydraulic tank is up to min level if less top-up.
- Check diesel level in diesel tank if less top-up.
- Check engine oil level.
- Check Air inlet /outlet and exhaust are not blocked.
- Check engine fan belt and guards.
- Check exhaust Flametrap is fitted in exhaust heat exchanger after cleaning.
- Engine cranking is done with the help of hydraulic starter.
- Check accumulator pressure, should be greater than 2500 Psi.
- Check all hydraulic quick connectors for winch and BOP is connected properly.
- Check radiator coolant level.

What is potential hazard during handling Power Pack

- Electrical Shock
- Burns
- Heavy Lifting
- Hydraulic Leaks
- Mechanical Injury
- Pressure Hazards

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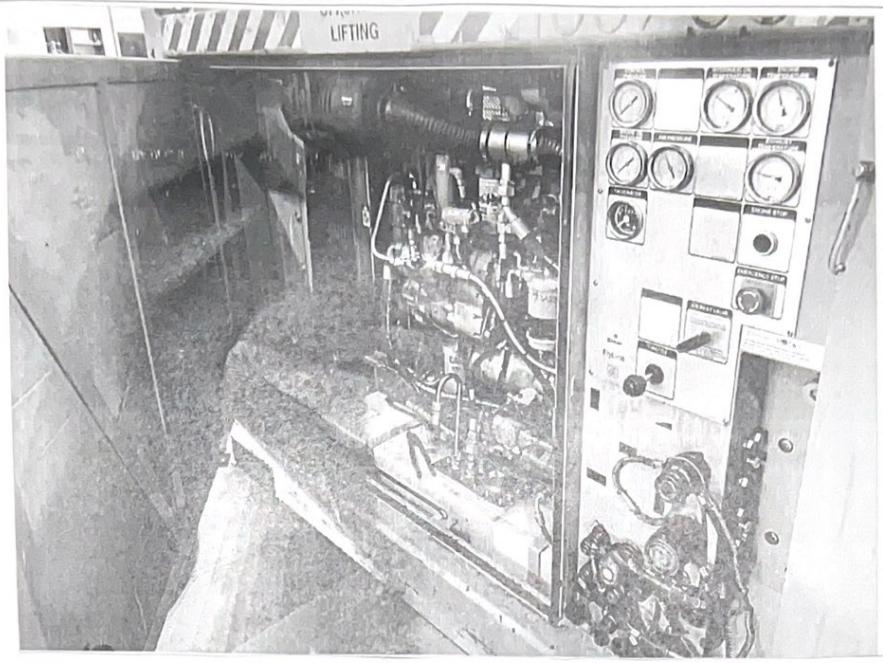
Draw & name each part of Power Pack



1. Exhaust silencer
2. Pneumatic and hydraulic connection
3. Engine Flame trap. Breather (zone 2 only)
4. Fuel tank.
5. Fuel Safety (Sentinel) valve
6. Spring starter.
7. Fuel fine filter.
8. Electric Junction Box.
9. Engine air intake Filter
10. Battery Isolation switch
11. control panel.
12. Fuel pre filter and water separator.
13. Spring starter crank handle.
14. Engine oil sump pump.
15. Fuel purifier
16. Engine oil filter.
17. Engine Air intake Safety Valve.
18. Air Inlet valve control handle.

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B.12. AIR COMPRESSOR

What is Air Compressor

Air Compressor is an open loop hydraulic system unit.

What is the purpose of Air Compressor

Used to supply compressed air to Control Panels when there is no supply on site.

How to operate Air Compressor

- Keep diesel cut off valve in start position.
- Recoil spring starter by turning on clockwise direction until the indicator turns red.
- Start engine by pulling and holding inlet overspeed shut down valve and releasing the spring starter start lever.
- Keep and continue holding the inlet Overspeed shut down valve (approx. 10 sec.) until oil pressure is built.

What is maintenance required for Air Compressor

Component	Description	Maintenance Required
Exhaust Gas Cooler	Houses both the inlet manifold and the exhaust heat exchanger also accommodate exhaust spark arrestor.	Should be cleaned at an interval of 1200 hrs. Remove heat exchanger from engine. Tape over coolant connections. Soak gas side of heat exchanger in a suitable cleaning agent (overnight). Drain cleaning agent wash heat exchanger through with clean water, further soak and rinse. Ensure heat exchanger is completely drained and refit.
Exhaust Flametrap	This assembly is a heavy duty spaced plate construction in 100% stainless steel material.	**Daily** – remove flametrap element. Soak in cleaning agent for at least 2 hrs. Wash through with clean water. Inspect for cleanliness or damage. **Three Monthly** - Following to cleaning, carry out full inspection of element to ensure that it has sustained no visual damage or distortion and the joint surface are flat to within 0.075mm.
Component	**Description**	**Maintenance Required**
Spark Arrestor	This item is twin centrifugal type in 100% stainless steel. Tested and approved for hazardous area operation.	**Daily** – Visually examine outer case for damage **Six Monthly** – Remove spark arrestor, lightly tap with soft mallet to loosen deposits. Shake out loose particles.
Automatic Engine Shut Down Control System	Operated by engine lubricating oil pressure. On loss of oil pressure, due either to a sensor exceeding its set point, oil leakage or engine oil system failure, the air inlet shut down valve is closed to stop engine.	**Three Monthly** – Check action of air inlet shut down valve. Check all pipe work for damage. Replace if necessary. Tighten all pipe connections. **Six Monthly** – Check operation of various sensors. **Yearly** – Carry out full calibration of all sensors upon every certification of equipment.

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What is safety precaution required for Air Compressor

- Check engine oil pressure is correct.
- Check radiator & coolant system for any leakage.
- Run the engine for 5-10 minutes, warm-up period, before putting air compressor on duty.
- Put air compressor on duty by pulling outwards the dump valve (Section 6, page 1).
- Check coolant and hydraulic oil temperature, must not exceed 90 °C when air compressor unit is under load.
- Check hydraulic oil pressure.

- For regular shutdown, dis-engage the compressor and allow 5 minutes running to cool the system before operating the panel mounting engine stop button.
- In case of emergency shutdown being required there are two options available.

1).Push the over speed control lever away from you or
2). Push the emergency stop control on the panel.

What is potential hazard during handling Air Compressor

- Air Pressure
- Electrical Shock
- Heavy Lifting
- Heat
- Noise
- Vibration
- Moving Parts
- Compressed Air

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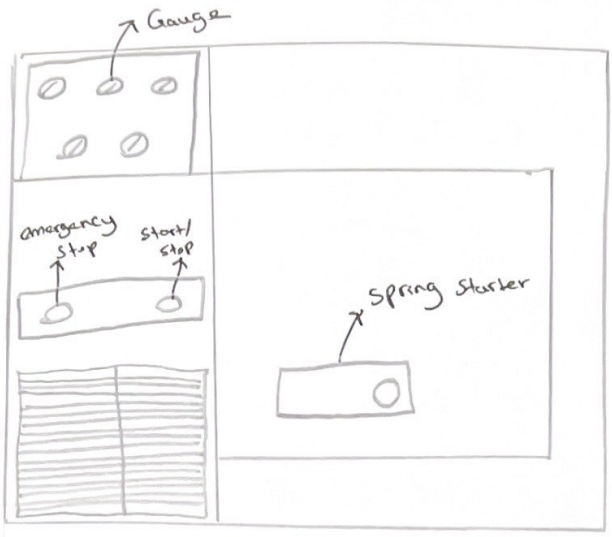
Draw & name each part of Air Compressor



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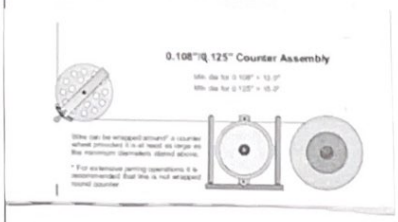
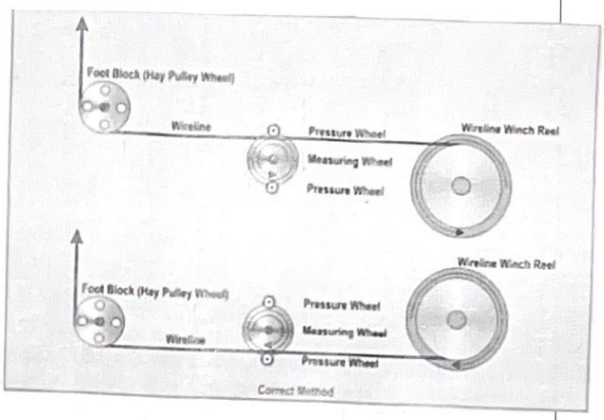
B.13. DRUM

What is the purpose of Drum

- to inside the wire
- keep storage the wire .

Draw the right and wrong wire arrangement from drum to hay pulley





Wrong Method

Right Method

What is maintenance required for Drum

- Greasing bearing

What is safety precaution required for Drum

- make sure wire direction is correct way.

What is potential hazard during handling Drum

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- pitch point
- sharp edge.

Please draw/sketch the toolstring configuration for:

1) Drift run/tubing clearance check
2) Sinker bar run
3) Set and retrieve plug
4) Set and retrieve insert valve