



Safety Alert

From the International Association of Drilling Contractors

ALERT 05 – 10

BATTERY EXPLODES WHILE BEING JUMP STARTED

WHAT HAPPENED:

In a recent rig incident a 12 volt battery exploded while being jump started. The 12 volt battery was fitted to the Pressure Test Pump. Booster or jumper cables were connected from the 12 volt battery to the 24 volt battery of the Forklift. The Pressure Pump was in the vicinity of the Catwalk at the time. The individuals who attempted to jump start the batteries were obviously unaware of the difference in voltage and the correct method of jump starting a battery. Fortunately the battery was the only casualty and there was no injury to personnel.

WHAT CAUSED IT:

1. Individuals were not aware of the correct method of jump starting as the cables were placed on the incorrect terminals.
2. Individuals were not aware of the incompatibility between 12V and 24V.
3. Individuals did not call for assistance even though it would appear they did not fully comprehend what to do.
4. No spare battery was available so unserviceable battery could not be disconnected and trickle charged in the Mechanic's workshop.
5. Other 12V batteries on site i.e. vehicle were not suitable to operate the Pressure Pump

CORRECTIVE ACTIONS: To address this incident, this company issued the following:

Learning's

- Only Mechanic or Electrician should be responsible for charging / Jump Starting batteries.
- Procedure for jump starting is to be in accordance with Company Procedure 009. See Attached.
- No battery charging or jump starting is to occur within 45 meters (150 ft) of the wellhead i.e. outside the hazardous area.
- Consideration should be given to storing a spare battery.
- See the instructions on the following pages.

The lesson out of this incident is – If you don't know or your not quite sure ASK



Exploded Battery

The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices

Copyright © 2005 International Association of Drilling Contractors All rights reserved.

Issued March 2005



Safety Alert

From the International Association of Drilling Contractors

The company issued the following Instructions to Rig Personnel:

JUMP STARTING A 12 VOLT BATTERY

Jump starting vehicles is performed regularly, however often incorrectly, which could cause a serious injury. Extreme care must be taken when jump starting an engine or serious bodily damage may result. If jump starting is not done correctly, expensive damage can result to a vehicle's electrical system, particularly where fitted with electronic ignitions

If the vehicle operating manual is available follow its recommended procedures. If it is not available or there are no specific instructions, follow these steps.

1. Tradesmen (mechanic or electrician) only to conduct vehicle jump starting.
2. NEVER jump start a vehicle within the hazardous area of the wellhead. Minimum distance should be at least 45 meters (150 feet) away.
3. Safety goggles should be worn to protect the eyes. When jump started, batteries generate high volumes of hydrogen gas which is extremely explosive. Naked flames must be avoided at all times.
4. Check that cables are not frayed or damaged.
5. DO NOT lean over batteries while jump starting.
6. Check to ensure both batteries are the same voltage. Jump starting 24V to 12V is very dangerous and should be avoided.
7. If failed battery is open circuit, do not attempt to jump start. Open circuit batteries can be detected by:
 - a. Battery volts reading zero even after a high rate discharge test is applied
 - b. When the battery will not accept charge current
8. Check vehicles are not touching and are in park or neutral.
9. Make sure both vehicles ignitions are switched OFF and all electrical equipment is OFF.
 - a. Connect the vehicles in the following EXACT sequence making sure the jumper or booster leads are clear of any moving parts. See diagram on following page.
 - b. Take the RED jumper lead and connect to the POSITIVE terminal (marked + or POS) on the discharged battery on the stalled vehicle
 - c. Connect the other end of the RED jumper lead to the POSITIVE terminal of the charged battery on the starting vehicle
 - d. Take the BLACK jumper lead and connect one end to the NEGATIVE terminal (marked – or NEG) of the charged battery on the starting vehicle
 - e. Make the final connection to the engine block or chassis or the stalled vehicle (negative earth vehicles only). Never use air conditioner, brakes or fuel lines for engine earth.
 - f. Start the engine of the starting or donor vehicle and allow to normalize for 5 minutes.
 - g. Start the engine of the stalled vehicle.
 - h. After starting, allow engine of the stalled vehicle to fast idle for about 10 minutes before disconnecting the jumper leads to allow the cars electrical system to balance. This reduces the possibility of damage to vehicle electronics.
 - i. Remove the BLACK jumper lead first from the vehicle by unclipping from the discharged battery then the charged battery.
 - j. Repeat above step for the RED jumper lead.

The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices

Copyright © 2005 International Association of Drilling Contractors All rights reserved.

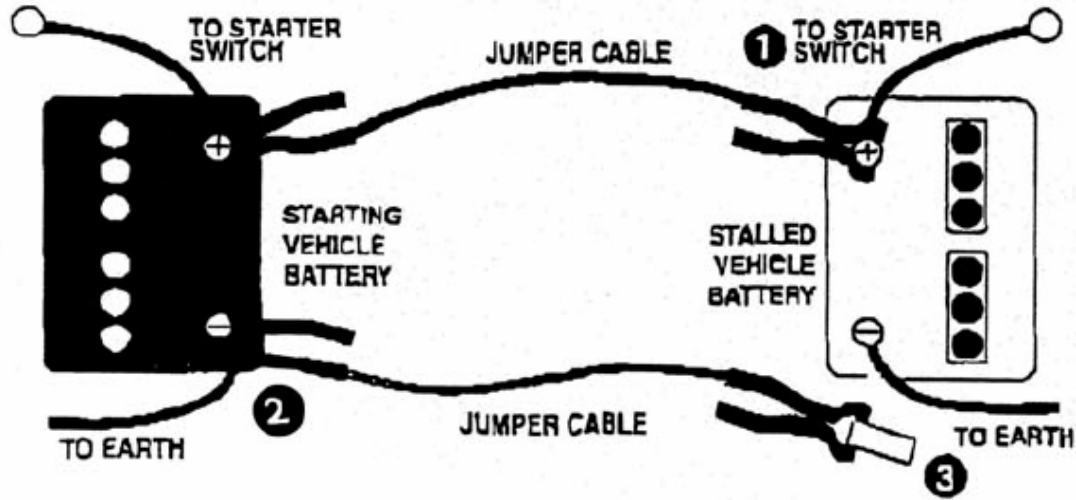
Issued March 2005



Safety Alert

From the International Association of Drilling Contractors

10. It is recommended that the discharged battery be fully charged using a battery charger.



The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices

Copyright © 2005 International Association of Drilling Contractors All rights reserved.

Issued March 2005