

How to protect the use of permanent magnet sucker at high and low temperature conditions ?

(1) Fill antifreeze. Low temperature conditions under which they allow, you can use antifreeze. In response to the cooling system before using thoroughly cleaned , and should choose a good quality , low corrosion antifreeze , [10 ton wire rope electric hoist](#) antifreeze quality time and to avoid the corrosion mechanism. The device does not use antifreeze in winter , every day before use in case of an open drain switch , add hot water about 80 °C , to be out of hot water and then drain off the switch to raise the body temperature ; every day after work is completed should be open all the cooling water drain switch exhausted . After the switch is still open drain position , so turn on the water without a net .

(2) make permanent magnet sucker insulation work . Winter magnetic chuck temperature rises slowly, especially in lower temperature, in order to ensure reliable operation of permanent magnet sucker , reduce fuel consumption [electric hoist](#), reduce mechanical wear , must do insulation work . Generally magnetic chuck can be stamped in the tank before the curtain , blocking the tank , reducing heat loss and maintain permanent magnet sucker temperature, to prevent the temperature is too low .

(3) Clear water jacket scale, inspection and maintenance drain switch . Permanent magnet sucker water jacket for cleaning, remove the internal scale, to prevent the accumulation of excessive scale , the impact of magnetic chuck cooling temperature is too high to make machines , but also the maintenance drain switch on the scale congestion, poor performance or damage should , as the repair or replacement of the situation , do not substitute with bolts or rags , or prone to cracking mechanical impact accident occurs drainage .

(4) Check the water-cooled permanent magnet sucker thermostat working conditions. Ensure that the thermostat works well to prevent permanent magnet sucker water temperature is too low or too high , in order to reduce engine wear . However, often the machine is running low , will lead to exponentially increase the amount of mechanical wear . In order to ensure rapid heating permanent magnet sucker winter [double girder gantry crane 150 ton](#), take down the thermostat can be taken to the practice , but it must be re- installed before the arrival of summer .

(5) Replace hydraulic or hydraulic transmission oil. Before the onset of winter , should the hydraulic system and hydraulic equipment to work device hydraulic drive system to replace the winter and hydraulic transmission oil to prevent winter due to oil viscosity increases, resulting in poor hydraulic system and transmission work , or even work device can not move, can not walk equipment failure .

(6) Replace the fuel . Selection of low pour point , good low-temperature fluidity fuel . At low temperatures, the viscosity of the fuel increases, poor mobility , poor atomization, resulting in the deterioration of the fuel combustion process , starting permanent magnet sucker , power and economy decreased, therefore, should be used in case of a conditional condensate points lower

fuel . General selection principles are: fuel pour point lower than the ambient temperature 6 °C .

(7) Replace the gear oil and grease. Construction machinery into the winter run , you should transmission, [gantry cranes](#) steering gear reducer and switch to winter gear oils, wheel bearing grease switching to low drop point .

(8) to replace oil . Small permanent magnet sucker selection viscosity oil . Low temperatures, the viscosity of the oil increases with decreasing temperature , flow variation , friction increase, will result in permanent magnet sucker difficult start , it should be replaced by a smaller viscosity oil to compensate or eliminate such adverse effects.

Container cranes inability to walk Failure Analysis and diagnosis methods described

The so-called inability to walk is the transmission gear design can not be delivered to each of the torque that the transmission slipping. Its symptoms are: feeling when you slip forward or backward ; [double girder overhead hoist crane](#) engine idling phenomenon occurs when starting Atlas air compressor parts or shift .

Analysis of the reasons may be the lack of control of the main oil ; clutch friction plate wear. In addition to electrical system failure and distribution valve spool stuck outside , the machine can not walk all the reasons causing the machine will cause inability to walk , but differ in the extent of it.

Failure can not walk according to the machine diagnostic methods , walking in the clutch pressure gauge connected to detect the mouth , start the engine, observe the pressure gauge readings. If the pressure is lower than the standard value , the cause of the fault inspection method and the same time can not walk .

If the pressure in line with the standard value , the diagnosis can be analyzed by manipulating each gear lever , pressure gauge pointer readings contrast changes . Diagnostic assays inability to walk due to faulty control line leaks and skid pad wear caused by faulty and can not walk the same, but the problems not so serious it. If you hang a file after taking office , the pressure gauge pointer readings decreased rapidly and then quickly rose to the standard value, while walking normally, but after a few minutes , the pressure has dropped , too weak to walk , but will push the joystick back to the neutral position , [container lifting cranes](#) a few minutes after the pressure came back to the standard value , this phenomenon in general, is poor or inadequate fluid suction caused should focus on checking the filter is clogged , the oil is sufficient.

With the failure of the pressure gauges and other diagnostic analysis simple diagnostic instruments, use of mathematics and exhaustive comparison of exclusion , for fault diagnosis of other types of hydraulic shift transmission has TELL effect.