Stacker cum Bucket Wheel Reclaimer

Bucket-wheel Stacker/Reclaimers travel on a rail track alongside the piles of material, offering the potential to selectively stack and reclaim materials in different stockpile sections. This is carried out in two quadrants (directions) on both sides of the track. Four-quadrant reclaiming is possible with units featuring tripper-trailers that can be uncoupled. Active stockpiles may be stacked and reclaimed within the traveling limits and operating radius - up to the boundary zone of the storage area on the boom side of the machine. On the trailer side, a clear space, or box cut, is provided, which permits the bucket-wheel to cut into a free end face of the pile. The traveling arrangement will have compact geared motor having disk brake system with inbuilt electro-magnetic braking. It will have individual wheel drive and there will not be any open gear arrangement. There will be rail clamping arrangement to safety secure the machine during cyclonic weather. An anemometer is to be fitted on top of the machine to indicate the wind speed in km/hr in the operator’s cabin. The slewing drive arrangement will have 2 drives. It will have electro-mechanical drives with suitable braking arrangement. The machine will be capable of slewing through ±105 degrees. The slewing bearing will have automatic lubrication system with lubricant flow indicator for all the points. The luffing system will have 2 hydraulic cylinders. The hydraulic system will have independent pressure indicator for the hydraulic cylinders. An equalizer will be provided to balance the pressures in both the cylinders. In the event of difference in pressure between hydraulic cylinders, a trip device must be provided to trip the hydraulic system. Bucket wheel shall be cell less type and of fabricated steel construction mounted on top of boom. No. of bucket will be preferably 8 and the capacity of bucket wheel will be such that it can handle required capacity per hour continuously. The bucket wheel drive will be of LT motor with traction type fluid coupling and planetary gears. The bucket wheel bearing will be connected to the centralized-automatic lubrication system. Buckets shall be fabricated from wear resistant steel with 10 mm thick S.S. liners and fitted with replaceable, high abrasive resistant teeth or tips. Machine carriage, fabricated from tested quality structural steel shall have adequate numbers of platforms, hand rails and access ladders. Three point support shall be provided to take care of irregularity of the track. The carriage, capable of moving both backward and forward on rail tracks shall be provided with two travel speeds and shall have slip ring drives. The travel mechanism shall have thruster operated brakes. It shall also have manually operated rail clamps. An impact table consisting of closely spaced troughing impact idlers shall be provided integral with the carriage to take the impact of the reclaimed material. Rail cleaners and spring type buffers shall also be provided on both sides.