

alertness as well as a control for preventing unsafe operation of the vehicle.

I claim:

1. A safety alertness monitoring system for a vehicle having an operator compartment, including an operator controlled throttle and a braking mechanism comprising:

first means for automatically producing a randomly generated symbol pattern at random intervals, the randomness of the intervals being independent of an operator input;

display means in said vehicle for showing said randomly generated symbol pattern to an operator;

key means for manually inputting a corresponding symbol pattern;

comparator means for determining if the corresponding symbol pattern matches the randomly generated symbol pattern, whereby a match indicates that the corresponding symbol pattern is a correct symbol pattern;

alarm means for producing a signal, discernible proximate said compartment, thereby signaling an expiration of a first predetermined time period following display of the randomly generated symbol pattern indicating that the correct symbol pattern was not entered into said key means before the expiration of said first predetermined time period; and

control means for disabling said throttle and engaging said braking mechanism, if the correct symbol pattern is not entered within a second predetermined time period following said signal.

2. A safety alertness monitoring system for a vehicle having an operator compartment, including an operator controlled throttle and a braking mechanism comprising:

first means for automatically producing a randomly generated symbol pattern at random intervals, the randomness of the intervals being independent of an operator input;

display means in said vehicle for showing said randomly generated symbol pattern to an operator;

key means for manually inputting a corresponding symbol pattern;

comparator means for determining if the corresponding symbol pattern matches the randomly generated symbol pattern, whereby a match indicates that the corresponding symbol pattern is a correct symbol pattern;

alarm means for producing a signal, discernible proximate said compartment, thereby signaling an expiration of a first predetermined time period following display of the randomly generated symbol pattern indicating that the correct symbol pattern was not entered into said key means before the expiration of said first predetermined time period;

control means for disabling said throttle and engaging said braking mechanism, if the correct symbol pattern is not entered within a second predetermined time period following said signal; and

means for sensing motion of said vehicle, thereby activating the system after said vehicle remains in motion for a predetermined amount of time, wherein said sensing means includes remote operation sensor means, said remote operation sensor

means causing disablement of the system when said vehicle is remotely operated.

3. The system according to claim 2 further comprising enabling means for activating the throttle and disengaging the braking mechanism, said enabling means being inaccessible to an operator during operation of said vehicle.

4. A safety alertness monitoring system for a vehicle with an operator compartment, including a speedometer and an operator controlled throttle and a braking mechanism comprising:

timer means for measuring a first randomly generated time period, a second predetermined time period after said first randomly generated time period expires and a third predetermined time period after said second predetermined time period expires;

display means, being visible from within said compartment, for showing a randomly generated symbol pattern to an operator after said first randomly generated time period expires;

key means, being accessible from within said compartment, for inputting a corresponding symbol pattern;

comparator means for determining if the corresponding symbol pattern matches the randomly generated symbol pattern, whereby a match indicates that the corresponding symbol pattern is a correct symbol pattern;

alarm means for producing a signal, discernible proximate said compartment, thereby signaling an expiration of said second predetermined time period indicating that the correct symbol pattern was not entered into said key means before the expiration of said second predetermined time period;

means for counting the number of signals produced; control means for inactivating the throttle and engaging the braking mechanism to bring the vehicle to a stop after said third predetermined time period is measured and the correct symbol pattern is not entered or if the counting means counts a predetermined number of signals;

means for resetting said timer means to measure a new randomly generated time period when the correct symbol pattern is entered before the third predetermined time period expires;

means for setting a number of signals counted by said counting means to zero when the correct symbol pattern is entered before the second predetermined time period expires; and

means for sensing forward motion of said vehicle, thereby activating the system by causing said timer means to begin measuring said first time period when said vehicle is in forward motion for a predetermined amount of time, wherein said sensing means includes remote operation sensor means, said remote operation sensor means causing disablement of the system when said vehicle is remotely operated.

5. The system according to claim 4 further comprising enabling means for activating the throttle and disengaging the braking mechanism, said enabling means being inaccessible to said operator during operation of said vehicle.

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