G05G

CONTROL DEVICES OR SYSTEMS INSO FAR AS CHARACTERISED BY MECHANICAL FEATURES ONLY ("Bowden" or like mechanisms F16C 1/10; gearings or mechanisms not peculiar to this purpose F16H; speed changing or reversing mechanisms for gearings conveying rotary motion F16H 59/00 - F16H 63/00)

NOTES

1. This subclass covers:
   • members of general applicability for mechanical control;
   • mechanical systems for moving members to one or more definite settings.

2. Systems peculiar to the control of particular machines or apparatus provided for in a single other class are classified in the relevant class for such machines or apparatus.

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Controlling members, e.g. knobs or handles; Assemblies or arrangements thereof; Indicating position of controlling members (means for preventing, limiting or returning the movements of parts of a control mechanism G05G 5/00; providing feel, e.g. means to create a counterforce G05G 5/03; specially adapted for programme control G05G 21/00; vibration damping G05G 25/02; joysticks G05G 9/04; steering wheels for motor vehicles B62D)

NOTE

In this group, the first place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.

1/08 Controlling members for hand actuation by rotary movement, e.g. hand wheels
1/082 (having safety devices, e.g. means for disengaging the control member from the actuated member)
1/085 (Crank handles (G05G 1/082 takes precedence))
1/087 (retractable; Flush control knobs)
1/10 Details, e.g. of discs, knobs, wheels or handles
   (G05G 1/085 takes precedence)
1/105 (comprising arrangements for illumination)
1/12 Means for securing the members on rotatable spindles or the like
1/30 Controlling members actuated by foot
1/305 (Compound pedal co-operating with two or more controlled members)
1/32 Means disconnecting the connection between pedal and controlled member, e.g. by breaking or bending the connecting rod
1/327 Means disconnecting the pedal from its hinge or support, e.g. by breaking or bending the support
1/34 Double foot controls, e.g. for instruction vehicles
1/36 Mounting units comprising an assembly of two or more pedals, e.g. for facilitating mounting
1/38 Means comprises means to continuously detect pedal position
1/40 Means adjustable
1/405 Means infinitely adjustable
1/42 Means not-pivoting, e.g. sliding
1/44 Means pivoting
1/445 Means about a central fulcrum
Means, e.g., links, for connecting the pedal to the controlled unit
Non-slip pedal treads; Pedal extensions or attachments characterised by mechanical features only
Non-slip treads; Pedal extensions or attachments characterised by mechanical features only
Pedal extensions
Manufacturing of pedals; Pedals characterised by the material used

[Controlling members for hand-actuation]
[Controlling members for foot-actuation]
Controlling members specially adapted for actuation by other parts of the human body than hand or foot
Controlling members specially adapted for actuation by auxiliary operating members or extensions; Operating members or extensions therefor (pedal extensions)
Controlling members specially adapted for actuation by keys, screwdrivers or like tools
Rests or guides for relevant parts of the operator's body
Foot rests or foot guides
Arm rests

Means for preventing, limiting or returning the movements of parts of a control mechanism, e.g. locking controlling member (G05G 1/00)
Means for enhancing the operator's awareness of arrival of the controlling member at a command or datum position; Providing feel, e.g. means for creating a counterforce (arrangements for indicating the position of the controlling member G05G 1/015)
Means for returning or tending to return controlling members to an inoperative or neutral position, e.g. by providing return springs or resilient end-stops (G05G 5/28 takes precedence)
Means for holding members in one or a limited number of definite positions only ((G05G 5/005), G05G 5/03, G05G 5/05, G05G 5/28 take precedence)
(u sing a spring-loaded ball)
Interlocking of members, e.g. locking member in a particular position before or during the movement of another member
for holding members in an indefinite number of positions, e.g. by a toothed quadrant (G05G 5/28 takes precedence)
by locking a member with respect to a fixed quadrant, rod, or the like
by friction
by positive interengagement, e.g. by a pawl
by locking a quadrant, rod, or the like carried by the member
by friction
by other means than a quadrant, rod, or the like
for preventing unauthorised access to the controlling member or its movement to a command position
Manually-actuated control mechanisms provided with one single controlling member co-operating with one single controlled member; Details thereof (controlling members G05G 1/00)
characterised by special provisions for conveying or converting motion, or for acting at a distance
altering the ratio of motion or force between controlling member and controlled member as a function of the position of the controlling member
in which repeated movement of the controlling member produces increments of movement of the controlled member (G05G 7/08 takes precedence)
in which repeated movement of the controlling member moves the controlling member through a cycle of distinct positions
specially adapted for remote control (G05G 7/04 - G05G 7/08 take precedence)
specially adapted for actuating a member on a system in motion with respect to the controlling member, e.g. on a rotating shaft
characterised by means for delaying initiation of, or making more gradual throughout, the movement of the controlled member in response to a given input from the controlling member, e.g. by providing lost motion in the command train
Special provisions for reducing the effect of slight relative movement between supports of the mechanism, e.g. resulting from resilient mounting of a controlled mechanism
Manually-actuated control mechanisms provided with two or more controlling members, e.g. selectively, simultaneously
the controlling member being movable in different independent ways, movement in each individual way actuating one controlled member only
in which movement in two or more ways can occur simultaneously
the controlling member being movable by hand about orthogonal axes, e.g. joysticks [(for switches H01H 25/04)]
Mounting of controlling member
with ball joint
with substantially hemispherical bearing part forced into engagement, e.g. by a spring
with orthogonal axes
with cardan or gimbal type joint
elastic, e.g. flexible shaft
with coil spring
melastomeric
with a joint having a nutating disc, e.g. forced by a spring
with six degrees of freedom
Automatically due to a specific cause

Mechanical devices for initiating a movement

G05G 5/08

Two or more controlled members

Manually-actuated control mechanisms provided with two or more controlling members co-operating with one single controlled member

Manually-actuated control mechanisms provided with two or more controlling members and also two or more controlled members (interlocking G05G 5/08)

Mechanical devices for initiating a movement automatically due to a specific cause

Due to an abnormal functioning of the controlled apparatus (if speed is abnormal G05G 15/06)

Due to a dangerous situation for the operator

Due to an excerted pressure

Mechanical devices for moving a member after being released; Trip or release mechanisms characterised thereby

Servo-mechanisms with follow-up action, e.g. occurring in steps

Mechanical apparatus for control of a series of operations, i.e. programme control, e.g. involving a set of cams (G05G 5/02 takes precedence)

Means for ensuring the correct positioning of parts of control mechanisms, e.g. for taking-up play

Self-adjusting

Other details or appurtenances of control mechanisms, e.g. supporting intermediate members elastically

Inhibiting the generation or transmission of noise

Sealing against entry of dust, weather or the like (in selector apparatus for gearings, F16H 59/0213)

Means for preventing, limiting or returning the movements of parts of a control mechanism, e.g. locking controlling member

Control mechanisms or elements therefor applying a mechanical movement

Means for regulating or adjusting control mechanisms, e.g. devices for automatic adjustment

Control mechanisms limiting amplitude or adjusting datum position

Control mechanisms for holding members in a number of positions comprising a device to limit the control range

Control mechanisms for locking members in one or more positions

Control mechanisms for locking or at least for blocking a member in one position out of a number of several positions

Control mechanisms with one controlling member and one controlled member

With one elastic element as essential part, e.g. elastic components as a part of an actuating mechanism

Mechanisms for conveying motion or signals for or in relation with control mechanisms

Systems wherein the control element may be placed in two or more positions

Control mechanisms not otherwise provided for

Mechanisms linking plurality of controlling or controlled members

Locking controlled members of selectively controlled mechanisms
with a control member moving selectively or simultaneously the controlled members

with a control member that is moved for preselection in another direction than for final actuating

without preselection or differentiation between selection and actuating, e.g. control members with a fix control sequence, after a determined advance cycle, in which the control device comprises cams actuating separately the controlled members

with plurality of control members, e.g. preselection and actuating members actuating several controlled members