

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### TRANSPORTING

#### B66 HOISTING; LIFTING; HAULING

**B66F HOISTING, LIFTING, HAULING OR PUSHING, NOT OTHERWISE PROVIDED FOR, e.g. DEVICES WHICH APPLY A LIFTING OR PUSHING FORCE DIRECTLY TO THE SURFACE OF A LOAD** ([{invalid lifting devices A61G 7/10; }](#) [mounting artificial islands on piles or like supports E02B 17/00;](#) [scaffolding combined with lifting devices E04G 1/22;](#) [lifting devices for sliding forms E04G 11/24;](#) [lifting of buildings E04G 23/06;](#) [shores or struts E04G 25/00;](#) [lifts or other hoisting devices on ladders E06C 7/12;](#) [props for mining E21D 15/00](#))

#### **WARNINGS**

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  
[B66F 19/02](#) covered by [B66F 19/00](#)
- 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.

<b>1/00</b>	<b>Devices, e.g. jacks, for lifting loads in predetermined steps</b>	3/245	. . {comprising toggle levers (lazy-tongs mechanisms <a href="#">B66F 3/22</a> )}
1/02	. with locking elements, e.g. washers, co-operating with posts	3/247	. . {pneumatically actuated ( <a href="#">B66F 3/35</a> takes precedence)}
1/025	. . {the devices being operated by fluid pressure ( <a href="#">B66F 1/08</a> takes precedence)}	3/25	. . Constructional features
1/04	. . the posts being toothed	3/26	. . . Adaptations or arrangements of pistons
1/06	. . . and the devices being actuated mechanically	3/28	. . . . telescopic
1/08	. . . and the devices being operated by fluid pressure	3/30	. . . with positive brakes or locks
		3/32	. . . with means for avoiding excessive shocks on completion of movements
<b>3/00</b>	<b>Devices, e.g. jacks, adapted for uninterrupted lifting of loads (mobile jacks of the garage type <a href="#">B66F 5/00</a>)</b>	3/35	. . . Inflatable flexible elements, e.g. bellows (inflatable load-engaging elements <a href="#">B66F 3/40</a> ; connection of valves to inflatable elastic bodies <a href="#">B60C 29/00</a> )
3/005	. {with rocking arm or sector}	3/36	. . . Load-engaging elements
3/02	. with racks actuated by pinions	3/38	. . . . adjustable relative to piston
3/04	. . with several racks	3/40	. . . . inflatable (connection of valves to inflatable elastic bodies <a href="#">B60C 29/00</a> )
3/06	. . with racks comprising pivotable toothed sections or segments, e.g. arranged in pairs	3/42	. . . with self-contained pumps, e.g. actuated by hand
3/08	. screw operated ( <a href="#">B66F 3/44</a> takes precedence; gearings <a href="#">F16H</a> )	3/43	. . Pyrotechnical jacks
3/10	. . with telescopic sleeves	3/44	. with self-contained electric driving motors
3/12	. . comprising toggle levers (lazy-tongs mechanisms <a href="#">B66F 3/22</a> )	3/46	. Combinations of several jacks with means for interrelating lifting or lowering movements
3/14	. . actuated through pawl-and-ratchet mechanisms		
3/16	. . actuated through bevel-wheel gearings	<b>5/00</b>	<b>Mobile jacks of the garage type mounted on wheels or rollers</b>
3/18	. . actuated through worm gearings	5/02	. with mechanical lifting gear
3/20	. . actuated through multiple or change-speed gearings	5/025	. . {screw-actuated}
3/22	. Lazy-tongs mechanisms ( <a href="#">B66F 11/042</a> takes precedence)}	5/04	. with fluid-pressure-operated lifting gear
3/24	. fluid-pressure operated (water-pressure machines <a href="#">F03B</a> ; hydraulic gearings <a href="#">F16H</a> ; cylinders, pistons <a href="#">F16J</a> ; fluid-pressure servomotors <a href="#">F15B</a> )	<b>7/00</b>	<b>Lifting frames, e.g. for lifting vehicles; Platform lifts</b> ( <a href="#">B66F 11/04</a> takes precedence) ; for lift-truck platform <a href="#">B66F 9/06</a> )
3/242	. . {suspended jacks}	7/02	. with platforms suspended from ropes, cables, or chains {or screws and movable along pillars}

- 7/025 . . {screw operated}
- 7/04 . . hydraulically or pneumatically operated
- 7/06 . . with platforms supported by levers for vertical movement
- 7/0608 . . {driven by screw or spindle}
- 7/0616 . . {Suspended platforms, i.e. the load platform hangs from the base}
- 7/0625 . . {with wheels for moving around the floor}
- 7/0633 . . {Mechanical arrangements not covered by the following subgroups}
- 7/0641 . . {Single levers, e.g. parallel links}
- 7/065 . . {Scissor linkages, i.e. X-configuration}
- 7/0658 . . . {Multiple scissor linkages horizontally arranged}
- 7/0666 . . . {Multiple scissor linkages vertically arranged}
- 7/0675 . . . . {Auxiliary scissors, e.g. above main scissors}
- 7/0683 . . . {Scissor linkage plus tilting action}
- 7/0691 . . {Asymmetric linkages, i.e. Y-configuration}
- 7/08 . . hydraulically or pneumatically operated
- 7/085 . . . {pneumatically operated}
- 7/10 . . with platforms supported directly by jacks
- 7/12 . . by mechanical jacks
- 7/14 . . . screw operated
- 7/16 . . by one or more hydraulic or pneumatic jacks
- 7/18 . . . by a single central jack
- 7/20 . . . by several jacks with means for maintaining the platforms horizontal during movement
- 7/22 . . with tiltable platforms ([tilting vehicles for unloading B65G 67/34](#))
- 7/24 . . for raising or lowering vehicles by their own power
- 7/243 . . {Ramps}
- 7/246 . . {Wheel supporting trolleys}
- 7/26 . . for selective lifting of parts of vehicles ([mobile garage jacks B66F 5/00](#))
- 7/28 . . Constructional details, e.g. end stops, pivoting supporting members, sliding runners adjustable to load dimensions
- 9/00** **Devices for lifting or lowering bulky or heavy goods for loading or unloading purposes** ([mobile or transportable lifts in, or associated with, buildings and specially adapted to be shifted from one part of a building or other structure to another part or to another building or structure B66B 9/16](#); [cranes B66C](#))
- 9/02 . . Stationary loaders or unloaders, e.g. for sacks
- 9/04 . . hydraulically actuated or controlled
- 9/06 . . movable, with their loads, on wheels or the like, e.g. fork-lift trucks ([vehicle aspects B60 - B62](#); [vehicles predominantly for transporting loads and modified to facilitate loading or unloading B60P 1/00](#); [low-lift hand trucks for transporting goods B62B 3/06](#))
- 9/061 . . {characterised by having a lifting jib}
- 9/063 . . {Automatically guided}
- 9/065 . . non-masted ([mobile jacks of the garage type mounted on wheels or rollers B66F 5/00](#))
- 9/0655 . . . {with a telescopic boom}
- 9/07 . . Floor-to-roof stacking devices, e.g. "stacker cranes", "retrievers"
- 9/072 . . . {Travelling gear therefor}
- 9/075 . . Constructional features or details
- 9/07504 . . . {Accessories, e.g. for towing, charging, locking}
- 9/07509 . . . {Braking}
- 9/07513 . . . {Details concerning the chassis}
- 9/07518 . . . . {Fuel or oil tank arrangements}
- 9/07522 . . . . {Variable length or width chassis}
- 9/07527 . . . . {Covers for, e.g. engines or batteries}
- 9/07531 . . . . {Battery compartments}
- 9/07536 . . . . . {Battery stoppers, i.e. means to hold battery in position}
- 9/0754 . . . . . {Battery removal arrangements}
- 9/07545 . . . {Overhead guards}
- 9/0755 . . . {Position control; Position detectors}
- 9/07554 . . . {Counterweights}
- 9/07559 . . . {Stabilizing means}
- 9/07563 . . . {Fork-lift trucks adapted to be carried by transport vehicles}
- 9/07568 . . . {Steering arrangements}
- 9/07572 . . . {Propulsion arrangements}
- 9/07577 . . . . {not supported by wheels, e.g. tracks or air cushions}
- 9/07581 . . . {Remote controls}
- 9/07586 . . . {Suspension or mounting of wheels on chassis}
- 9/0759 . . . {Details of operating station, e.g. seats, levers, operator platforms, cabin suspension}
- 9/07595 . . . {Cooling arrangements for device or operator}
- 9/08 . . . Masts; Guides; Chains
- 9/082 . . . . {inclination}
- 9/085 . . . . . {Multiple forks, i.e. more than one pair mounted on a single mast or with more than one mast}
- 9/087 . . . . . {Monomasts}
- 9/10 . . . . . movable in a horizontal direction relative to truck
- 9/105 . . . . . {Articulated, i.e. front chassis with wheels and mast rotatable relative to rear chassis with wheels}
- 9/12 . . . Platforms; Forks; Other load supporting or gripping members
- 9/122 . . . . . {longitudinally movable}
- 9/125 . . . . . {rotatable about a longitudinal axis}
- 9/127 . . . . . {Working platforms}
- 9/14 . . . . . laterally movable, e.g. swingable, for slewing or transverse movements
- 9/141 . . . . . {with shuttle-type movement}
- 9/142 . . . . . {Movements of forks either individually or relative to each other}
- 9/143 . . . . . . {Movements of forks relative to each other - symmetric}
- 9/144 . . . . . . {Movements of forks relative to each other - independent}
- 9/145 . . . . . . {Rotation of fork around vertical axis}
- 9/146 . . . . . . {Side shift, i.e. both forks move together sideways relative to fork support}
- 9/147 . . . . . . {Whole unit including fork support moves relative to mast}
- 9/148 . . . . . . {Whole unit including fork support moves sideways}
- 9/149 . . . . . . {Whole unit including fork support rotates}
- 9/16 . . . . . inclinable relative to mast
- 9/165 . . . . . {Foldable forks, i.e. where only the horizontal section moves}
- 9/18 . . . . . Load gripping or retaining means
- 9/181 . . . . . {by suction means}

- 9/182 . . . . . {by magnetic means}
- 9/183 . . . . . {Coplanar side clamps}
- 9/184 . . . . . {Roll clamps}
- 9/185 . . . . . {by internally expanding grippers}
- 9/186 . . . . . {Container lifting frames}
- 9/187 . . . . . {Drum lifting devices}
- 9/188 . . . . . {Stacked-bricks lifting devices}
- 9/19 . . . . . Additional means for facilitating unloading
- 9/195 . . . . . {for pushing the load}
- 9/20 . . . . . Means for actuating or controlling masts, platforms, or forks (power take-off from vehicle transmissions, combined with vehicle propulsion systems [B60K](#))
- 9/205 . . . . . {Arrangements for transmitting pneumatic, hydraulic or electric power to movable parts or devices (for cranes [B66C 13/12](#))}
- 9/22 . . . . . Hydraulic devices or systems
- 9/24 . . . . . Electrical devices or systems

**11/00 Lifting devices specially adapted for particular uses not otherwise provided for (ground-engaging vehicle fittings for supporting, lifting or manoeuvring the vehicle [B60S 9/00](#))**

- 11/04 . . . . . for movable platforms or cabins, e.g. on vehicles, permitting workmen to place themselves in any desired position for carrying out required operations ({Working platforms on fork-lift trucks [B66F 9/127](#); } vehicle aspects of service vehicles [B60P 3/14](#); platforms for cleaning windows [A47L 3/02](#); devices for rescuing persons from buildings [A62B 1/02](#); liftable or lowerable platforms for use on ladders [E06C 7/16](#); maintenance travellers for bridges [E01D 19/10](#); scaffolds on an extensible sub-structure [E04G 1/22](#))
- 11/042 . . . . . {actuated by lazy-tongs mechanisms or articulated levers}
- 11/044 . . . . . {Working platforms suspended from booms}
- 11/046 . . . . . {of the telescoping type}
- 11/048 . . . . . {Mobile camera platform}

**13/00 Common constructional features or accessories**

- 13/005 . . . . . {Thrust chain devices}

**15/00 Crowbars or levers**

**17/00 Safety devices, e.g. for limiting or indicating lifting force**

- 17/003 . . . . . {for fork-lift trucks}
- 17/006 . . . . . {for working platforms}

**19/00 Hoisting, lifting, hauling or pushing, not otherwise provided for**

- 19/005 . . . . . {Lifting devices for manhole covers}

**2700/00 Lifting apparatus**

- 2700/02 . . . . . Lifting devices with a toothed post and pawl latch or with a post and locking elements
- 2700/025 . . . . . with a post and locking elements
- 2700/03 . . . . . Lifting jacks with pinion and rack
- 2700/04 . . . . . Jacks with screw and nut
- 2700/05 . . . . . Hydraulic jacks
- 2700/052 . . . . . Support- or transmission members
- 2700/055 . . . . . Jacks with a single cylinder
- 2700/057 . . . . . Pistons, e.g. telescopic; Cylinders or sealing joints; Hydraulic travel-limiting devices or shock damping

- 2700/07 . . . . . Lifting devices actuated by the driving force of water
- 2700/09 . . . . . Other lifting devices
- 2700/12 . . . . . Lifting platforms for vehicles or motorcycles or similar lifting apparatus
- 2700/123 . . . . . Details concerning the support members or devices not related to the lifting itself
- 2700/126 . . . . . Arrangements in which the platform is fixed to the upper end of a single or plural jacks