

**CPC****COOPERATIVE PATENT CLASSIFICATION****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](#) )

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[B66F 19/02](#) covered by [B66F 19/00](#)

**B66F 1/00**

**Devices, e.g. jacks, for lifting loads in predetermined steps**

- B66F 1/02 . with locking elements, e.g. washers, co-operating with posts
- B66F 1/025 .. { the devices being operated by fluid pressure ( [B66F 1/08](#) takes precedence ) }
- B66F 1/04 .. the posts being toothed
- B66F 1/06 ... and the devices being actuated mechanically
- B66F 1/08 ... and the devices being operated by fluid pressure

**B66F 3/00**

**Devices, e.g. jacks, adapted for uninterrupted lifting of loads** ( mobile jacks of the garage type [B66F 5/00](#) )

- B66F 3/005 . { with rocking arm or sector }
- B66F 3/02 . with racks actuated by pinions
- B66F 3/04 .. with several racks
- B66F 3/06 .. with racks comprising pivotable toothed sections or segments, e.g. arranged in pairs
- B66F 3/08 . screw operated ( [B66F 3/44](#) takes precedence; [gearings F16H](#) )
- B66F 3/10 .. with telescopic sleeves
- B66F 3/12 .. comprising toggle levers ( [lazy-tongs mechanisms B66F 3/22](#) )
- B66F 3/14 .. actuated through pawl-and-ratchet mechanisms
- B66F 3/16 .. actuated through bevel-wheel gearings
- B66F 3/18 .. actuated through worm gearings
- B66F 3/20 .. actuated through multiple or change-speed gearings
- B66F 3/22 . Lazy-tongs mechanisms { ( [B66F 11/042](#) takes precedence ) }
- B66F 3/24 . fluid-pressure operated ( [water-pressure machines F03B](#) ; [hydraulic gearings F16H](#) ; [cylinders, pistons F16J](#) ; [fluid-pressure servomotors F15B](#) )

- B66F 3/242 .. { **suspended jacks** }
- B66F 3/245 .. { **comprising toggle levers** ( **lazy-tongs mechanisms** [B66F 3/22](#) ) }
- B66F 3/247 .. { **pneumatically actuated** ( [B66F 3/35 takes precedence](#) ) }
- B66F 3/25 .. Constructional features
  - B66F 3/26 ... Adaptations or arrangements of pistons
    - B66F 3/28 .... telescopic
    - B66F 3/30 ... with positive brakes or lock
    - B66F 3/32 ... with means for avoiding excessive shocks on completion of movements
    - B66F 3/35 ... Inflatable flexible elements, e.g. bellows ( **inflatable load-engaging elements** [B66F 3/40](#) ; **connection of valves to inflatable elastic bodies** [B60C 29/00](#) )
    - B66F 3/36 ... Load-engaging elements
      - B66F 3/38 .... adjustable relative to piston
      - B66F 3/40 .... inflatable ( **connection of valves to inflatable elastic bodies** [B60C 29/00](#) )
      - B66F 3/42 ... with self-contained pumps, e.g. actuated by hand
  - B66F 3/43 .. Pyrotechnical jacks
- B66F 3/44 . with self-contained electric driving motors
- B66F 3/46 . Combinations of several jacks with means for interrelating lifting or lowering movements

#### **B66F 5/00 Mobile jacks of the garage type mounted on wheels or rollers**

- B66F 5/02 . with mechanical lifting gear
- B66F 5/025 .. { **screw-actuated** }
- B66F 5/04 . with fluid-pressure-operated lifting gear

#### **B66F 7/00 Lifting frames, e.g. for lifting vehicles ; Platform lifts ( { [B66F 11/04 takes precedence](#) } ; for lift-truck platform [B66F 9/06](#) )**

- B66F 7/02 . with platforms suspended from ropes, cables, or chains { **or screws and movable along pillars** }
- B66F 7/025 .. { **screw operated** }
- B66F 7/04 .. hydraulically or pneumatically operated
- B66F 7/06 . with platforms supported by levers for vertical movement
  - B66F 7/0608 .. { **driven by screw or spindle** }
  - B66F 7/0616 .. { **Suspended platforms, i.e. the load platform hangs from the base** }
  - B66F 7/0625 .. { **with wheels for moving around the floor** }
  - B66F 7/0633 .. { **Mechanical arrangements not covered by the following subgroups** }
  - B66F 7/0641 .. { **Single levers, e.g. parallel links** }
  - B66F 7/065 .. { **Scissor linkages, i.e. X-configuration** }
  - B66F 7/0658 ... { **Multiple scissor linkages horizontally arranged** }
  - B66F 7/0666 ... { **Multiple scissor linkages vertically arranged** }

- B66F 7/0675 . . . . { Auxiliary scissors, e.g. above main scissors }
- B66F 7/0683 . . . { Scissor linkage plus tilting action }
- B66F 7/0691 . . { Asymmetric linkages, i.e. Y-configuration }
- B66F 7/08 . . hydraulically or pneumatically operated
- B66F 7/085 . . . { pneumatically operated }
  
- B66F 7/10 . with platforms supported directly by jacks
- B66F 7/12 . . by mechanical jacks
- B66F 7/14 . . . screw operated
- B66F 7/16 . . by one or more hydraulic or pneumatic jacks
- B66F 7/18 . . . by a single central jack
- B66F 7/20 . . . by several jacks with means for maintaining the platforms horizontal during movement
  
- B66F 7/22 . with tiltable platforms ( [tilting vehicles for unloading B65G 67/34](#) )
  
- B66F 7/24 . for raising or lowering vehicles by their own power
- B66F 7/243 . . { Ramps }
- B66F 7/246 . . { Wheel supporting trolleys }
  
- B66F 7/26 . for selective lifting of parts of vehicles ( [mobile garage jacks B66F 5/00](#) )
  
- B66F 7/28 . Constructional details, e.g. end stops, pivoting supporting members, sliding runners adjustable to load dimensions
  
- B66F 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](#) )
  
- B66F 9/02 . Stationary loaders or unloaders, e.g. for sacks
- B66F 9/04 . . hydraulically actuated or controlled
  
- B66F 9/06 . movable, with their loads, on wheels or the like, e.g. fork-lift trucks ( [vehicle aspects B60 to 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](#) )
- B66F 9/061 . . { characterised by having a lifting jib }
- B66F 9/063 . . { Automatically guided }
- B66F 9/065 . . non-masted ( [mobile jacks of the garage type mounted on wheels or rollers B66F 5/00](#) )
- B66F 9/0655 . . . { with a telescopic boom }
- B66F 9/07 . . Floor-to-roof stacking devices, e.g. "stacker cranes", "retrievers"
- B66F 9/072 . . . { Travelling gear therefor }
- B66F 9/075 . . Constructional features or details
- B66F 9/07504 . . . { Accessories, e.g. for towing, charging, locking }
- B66F 9/07509 . . . { Braking }

B66F 9/07513	...	{ Details concerning the chassis }
B66F 9/07518	....	{ Fuel or oil tank arrangements }
B66F 9/07522	....	{ Variable length or width chassis }
B66F 9/07527	....	{ Covers for e.g. engines or batteries }
B66F 9/07531	....	{ Battery compartments }
B66F 9/07536	.....	{ Battery stoppers, i.e. means to hold battery in position }
B66F 9/0754	....	{ Battery removal arrangements }
B66F 9/07545	...	{ Overhead guards }
B66F 9/0755	...	{ Position control; Position detectors }
B66F 9/07554	...	{ Counterweights }
B66F 9/07559	...	{ Stabilizing means }
B66F 9/07563	...	{ Fork-lift trucks adapted to be carried by transport vehicles }
B66F 9/07568	...	{ Steering arrangements }
B66F 9/07572	...	{ Propulsion arrangements }
B66F 9/07577	....	{ not supported by wheels, e.g. tracks or air cushions }
B66F 9/07581	...	{ Remote controls }
B66F 9/07586	...	{ Suspension or mounting of wheels on chassis }
B66F 9/0759	...	{ Details of operating station, e.g. seats, levers, operator platforms, cabin suspension }
B66F 9/07595	...	{ Cooling arrangements for device or operator }
B66F 9/08	...	Masts ; Guides ; Chains
B66F 9/082	....	{ inclinable }
B66F 9/085	....	{ Multiple forks, i.e. more than one pair mounted on a single mast or with more than one mast }
B66F 9/087	....	{ Monomasts }
B66F 9/10	....	movable in a horizontal direction relative to truck
B66F 9/105	.....	{ Articulated, i.e. front chassis with wheels and mast rotatable relative to rear chassis with wheels }
B66F 9/12	...	Platforms ; Forks ; Other load supporting or gripping members
B66F 9/122	....	{ longitudinally movable }
B66F 9/125	....	{ rotatable about a longitudinal axis }
B66F 9/127	....	{ Working platforms }
B66F 9/14	....	laterally movable, e.g. swingable, for slewing or transverse movements
B66F 9/141	.....	{ with shuttle-type movement }
B66F 9/142	.....	{ Movements of forks either individually or relative to each other }
B66F 9/143	.....	{ Movements of forks relative to each other - symmetric }
B66F 9/144	.....	{ Movements of forks relative to each other - independent }
B66F 9/145	.....	{ Rotation of fork around vertical axis }
B66F 9/146	.....	{ Side shift, i.e. both forks move together sideways relative to fork support }
B66F 9/147	.....	{ Whole unit including fork support moves relative to mast }
B66F 9/148	.....	{ Whole unit including fork support moves sideways }
B66F 9/149	.....	{ Whole unit including fork support rotates }

B66F 9/16	....	inclinable relative to mast
B66F 9/165	.....	{ Foldable forks, i.e. where only the horizontal section moves }
B66F 9/18	....	Load gripping or retaining means
B66F 9/181	.....	{ by suction means }
B66F 9/182	.....	{ by magnetic means }
B66F 9/183	.....	{ Coplanar side clamps }
B66F 9/184	.....	{ Roll clamps }
B66F 9/185	.....	{ by internally expanding grippers }
B66F 9/186	.....	{ Container lifting frames }
B66F 9/187	.....	{ Drum lifting devices }
B66F 9/188	.....	{ Stacked-bricks lifting devices }
B66F 9/19	....	Additional means for facilitating unloading
B66F 9/195	.....	{ for pushing the load }
B66F 9/20	...	Means for actuating or controlling masts, platforms, or forks ( power take-off from vehicle transmissions, combined with vehicle propulsion systems <a href="#">B60K</a> )
B66F 9/205	....	{ Arrangements for transmitting pneumatic, hydraulic or electric power to movable parts or devices ( for cranes <a href="#">B66C 13/12</a> ) }
B66F 9/22	....	Hydraulic devices or systems
B66F 9/24	....	Electrical devices or systems
<b>B66F 11/00</b>		<b>Lifting devices specially adapted for particular uses not otherwise provided for ( ground-engaging vehicle fittings for supporting, lifting or manoeuvring the vehicle <a href="#">B60S 9/00</a> )</b>
B66F 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 <a href="#">B66F 9/127</a> ; } vehicle aspects of service vehicles <a href="#">B60P 3/14</a> ; platforms for cleaning windows <a href="#">A47L 3/02</a> ; devices for rescuing persons from buildings <a href="#">A62B 1/02</a> ; liftable or lowerable platforms for use on ladders <a href="#">E06C 7/16</a> ; maintenance travellers for bridges <a href="#">E01D 19/10</a> ; scaffolds on an extensible sub-structure <a href="#">E04G 1/22</a> )
B66F 11/042	..	{ actuated by lazy-tongs mechanisms or articulated levers }
B66F 11/044	..	{ Working platforms suspended from booms }
B66F 11/046	...	{ of the telescoping type }
B66F 11/048	..	{ Mobile camera platform }
<b>B66F 13/00</b>		<b>Common constructional features or accessories</b>
B66F 13/005	.	{ Thrust chain devices }
<b>B66F 15/00</b>		<b>Crowbars or levers</b>
<b>B66F 17/00</b>		<b>Safety devices, e.g. for limiting or indicating lifting force</b>
B66F 17/003	.	{ for fork-lift trucks }

- B66F 17/006 . { for working platforms }
- B66F 19/00** **Hoisting, lifting, hauling or pushing, not otherwise provided for**
- B66F 19/005 . { Lifting devices for manhole covers }
- B66F 2700/00** **Lifting apparatus**
- B66F 2700/02 . Lifting devices with a toothed post and pawl latch or with a post and locking elements
- B66F 2700/025 . . with a post and locking elements
- B66F 2700/03 . Lifting jacks with pinion and rack
- B66F 2700/04 . Jacks with screw and nut
- B66F 2700/05 . Hydraulic jacks
- B66F 2700/052 . . Support- or transmission members
- B66F 2700/055 . . Jacks with a single cylinder
- B66F 2700/057 . . . Pistons, e.g. telescopic ; Cylinders or sealing joints ; Hydraulic travel-limiting devices or shock damping
- B66F 2700/07 . Lifting devices actuated by the driving force of water
- B66F 2700/09 . Other lifting devices
- B66F 2700/12 . Lifting platforms for vehicles or motorcycles or similar lifting apparatus
- B66F 2700/123 . . Details concerning the support members or devices not related to the lifting itself
- B66F 2700/126 . . Arrangements in which the platform is fixed to the upper end of a single or plural jacks