

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	.....	[N. 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	....	inclination 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 B60K)
B66F 9/205	....	{Arrangements for transmitting pneumatic, hydraulic or electric power to movable parts or devices (for cranes B66C 13/12)}
B66F 9/22	....	Hydraulic devices or systems
B66F 9/24	....	Electrical devices or systems

B66F 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](#))

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 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)
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}

B66F 13/00 **Common constructional features or accessories**

B66F 13/005	.	{Thrust chain devices}
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B66F 15/00 **Crowbars or levers**

B66F 17/00 **Safety devices, e.g. for limiting or indicating lifting force**

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