

## SECTION B — PERFORMING OPERATIONS; 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** (mounting artificial islands on piles or like supports E02B 17/00; scaffolds combined with lifting devices E04G 1/22, E04G 3/28; 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)

#### Subclass index

JACKS OR THE LIKE.....	1/00, 3/00, 5/00
LIFTING FRAMES.....	7/00
DEVICES FOR PARTICULAR USES.....	5/00, 9/00, 11/00
MASTED LIFTING-PLATFORM OR FORK-LIFT TRUCKS.....	9/06
COMMON FEATURES OR ACCESSORIES.....	13/00
CROWBARS OR LEVERS.....	15/00
SAFETY DEVICES.....	17/00
OTHER HOISTING, LIFTING, HAULING, OR PUSHING.....	19/00

<b>1/00</b>	<b>Devices, e.g. jacks, for lifting loads in predetermined steps</b>	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) [3]
1/02	• with locking elements, e.g. washers, co-operating with posts		
1/04	• • the posts being toothed	3/36	• • • Load-engaging elements [3]
1/06	• • • and the devices being actuated mechanically	3/38	• • • • adjustable relative to piston [3]
1/08	• • • and the devices being operated by fluid pressure	3/40	• • • • inflatable (connection of valves to inflatable elastic bodies B60C 29/00) [3]
		3/42	• • • with self-contained pumps, e.g. actuated by hand [3]
<b>3/00</b>	<b>Devices, e.g. jacks, adapted for uninterrupted lifting of loads (mobile jacks of the garage type B66F 5/00)</b>	3/43	• • Pyrotechnical jacks [3]
3/02	• with racks actuated by pinions	3/44	• with self-contained electric driving motors
3/04	• • with several racks	3/46	• Combinations of several jacks with means for interrelating lifting or lowering movements
3/06	• • with racks comprising pivotable toothed sections or segments, e.g. arranged in pairs		
3/08	• screw-operated (B66F 3/44 takes precedence; gearings F16H)	<b>5/00</b>	<b>Mobile jacks of the garage type mounted on wheels or rollers</b>
3/10	• • with telescopic sleeves	5/02	• with mechanical lifting gear
3/12	• • comprising toggle levers (lazy-tongs mechanisms B66F 3/22)	5/04	• with fluid-pressure-operated lifting gear
3/14	• • actuated through pawl-and-ratchet mechanisms	<b>7/00</b>	<b>Lifting frames, e.g. for lifting vehicles; Platform lifts (for lift-truck platforms B66F 9/06)</b>
3/16	• • actuated through bevel-wheel gearings	7/02	• with platforms suspended from ropes, cables, or chains
3/18	• • actuated through worm gearings	7/04	• • hydraulically or pneumatically operated
3/20	• • actuated through multiple or change-speed gearings	7/06	• with platforms supported by levers for vertical movement
3/22	• Lazy-tongs mechanisms	7/08	• • hydraulically or pneumatically operated
3/24	• fluid-pressure operated (water-pressure machines F03B; fluid-pressure servomotors F15B, e.g. pyrotechnical actuators F15B 15/19; hydraulic gearings F16H; cylinders, pistons F16J)	7/10	• with platforms supported directly by jacks
3/25	• • Constructional features [3]	7/12	• • by mechanical jacks
3/26	• • • Adaptations or arrangements of pistons [3]	7/14	• • • screw-operated
3/28	• • • • telescopic [3]	7/16	• • • by one or more hydraulic or pneumatic jacks
3/30	• • • Positive brakes or locks [3]	7/18	• • • by a single central jack
3/32	• • • Means for avoiding excessive shocks on completion movements [3]	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)

## B66F

- 7/24 • for raising or lowering vehicles by their own power
- 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)
- 9/065 • • non-masted (mobile jacks of the garage type mounted on wheels or rollers B66F 5/00) [3]
- 9/07 • • Floor-to-roof stacking devices, e.g. stacker cranes, retrievers [3]
- 9/075 • • Constructional features or details [3]
- 9/08 • • • Masts; Guides; Chains [3]
- 9/10 • • • movable in a horizontal direction relative to truck [3]
- 9/12 • • • Platforms; Forks; Other load-supporting or load-gripping members [3]
- 9/14 • • • laterally movable, e.g. swingable, for slewing or transverse movements [3]
- 9/16 • • • • inclinable relative to mast [3]
- 9/18 • • • • Load gripping or retaining means [3]

- 9/19 • • • • Additional means for facilitating unloading [3]
- 9/20 • • • Means for actuating or controlling masts, platforms, or forks (power take-off from vehicle transmissions, combined with vehicle propulsion systems B60K) [3]
- 9/22 • • • • Hydraulic devices or systems [3]
- 9/24 • • • • Electrical devices or systems [3]

### 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 (platforms for cleaning windows A47L 3/02; devices for rescuing persons from buildings A62B 1/02; vehicle aspects of service vehicles B60P 3/14; maintenance travellers for bridges E01D 19/10; scaffolds on an extensible substructure E04G 1/22; liftable or lowerable platforms for use on ladders E06C 7/16)

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

#### 15/00 **Crowbars or levers**

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

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

- 19/02 • Hauling using anchors; Anchors therefor (marine anchors B63B 21/24; anchoring aircraft B64F 1/12; means for anchoring structural elements specially adapted to foundation engineering E02D 5/74) [3]