

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)

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

1/00 Devices, e.g. jacks, for lifting loads in predetermined steps
1/02 . with locking elements, e.g. washers, co-operating with posts
1/04 . . the posts being toothed
1/06 . . . and the devices being actuated mechanically
1/08 . . . and the devices being operated by fluid pressure

3/00 Devices, e.g. jacks, adapted for uninterrupted lifting of loads (mobile jacks of the garage type B66F 5/00)
3/02 . with racks actuated by pinions
3/04 . . with several racks
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)
3/10 . . with telescopic sleeves
3/12 . . comprising toggle levers (lazy-tongs mechanisms B66F 3/22)
3/14 . . actuated through pawl-and-ratchet mechanisms
3/16 . . actuated through bevel-wheel gearings
3/18 . . actuated through worm gearings
3/20 . . actuated through multiple or change-speed gearings
3/22 . Lazy-tongs mechanisms
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)
3/25 . . Constructional features [3]
3/26 . . . Adaptations or arrangements of pistons [3]
3/28 telescopic [3]
3/30 . . . Positive brakes or locks [3]
3/32 . . . Means for avoiding excessive shocks on completion movements [3]
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]
3/36 . . . Load-engaging elements [3]
3/38 adjustable relative to piston [3]
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]

3/43 . . Pyrotechnical jacks [3]
3/44 . with self-contained electric driving motors
3/46 . Combinations of several jacks with means for interrelating lifting or lowering movements

5/00 Mobile jacks of the garage type mounted on wheels or rollers
5/02 . with mechanical lifting gear
5/04 . with fluid-pressure-operated lifting gear

7/00 Lifting frames, e.g. for lifting vehicles; Platform lifts (for lift-truck platforms B66F 9/06)
7/02 . with platforms suspended from ropes, cables, or chains
7/04 . . hydraulically or pneumatically operated
7/06 . with platforms supported by levers for vertical movement
7/08 . . hydraulically or 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
7/26 . 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

B66F

- 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]