A transport pallet (1) for receiving freight comprising a base plate (2) provided with fork lift pockets (6) which, on the front face thereof open towards the rear end of the base plate (2). At least two supporting rollers (7) are arranged on the front end of the base plate. The base plate (2) comprises lateral guiding rollers (8) which are arranged at least close to the front end thereof, and extendable and detachable ramp lanes (4) are arranged on the rear end thereof. Lateral pulling eyelets (14, 16) are arranged close to the front end and close to the rear end of the transport pallet (1).
TRANSPORT PALLET AND THE USE THEREOF

[0001] The invention relates to a transport pallet for receiving freight, with a baseplate provided with binding devices for the freight and having fork pockets for forklift equipment.

[0002] Such transport pallets are known in different embodiments. It is common to them that the freight is bound on the transport pallet and that the transport pallet can be loaded by means of forklift devices, for example, forklift stackers. When such transport pallets are to be received in freight containers, the freight itself is usually bound to binding eyelets present in the interior of the freight container. It is required for this purpose that sufficient space is available within the interior of the freight container in order to effect the binding.

[0003] The transportation of motor vehicles, particularly automobiles, in air and sea transportation usually takes place up to now in that the motor vehicle is moved on its own axis, for example in order to be brought into a sea freight container or onto an air freight pallet. This is particularly expensive and associated with a risk of damage when the freight has to be transferred between different transportation means. It is admittedly known to transport vehicles and similar large and bulky freight bound to pallets. However, it is necessary here to employ lifting means for the transport pallet, for example, a loading crane of a cargo ship. Placing in a freight container is therefore not possible in this manner.

[0004] The invention therefore has as its object to design a transport pallet of the kind mentioned at the beginning so that it, together with the freight bound to it, for example an automobile, can be transferred in a simple and secure manner and thereby also brought, in particular, into a freight container.

[0005] This object is attained according to the invention in that fork pockets are provided at the end, open toward the rear end, of the baseplate, that at the front end of the baseplate at least two front rollers are mounted, and that the baseplate has lateral guide rollers at least near its front end.

[0006] In contrast to the heretofore usual lifting up of such transport pallets from the side, the transport pallet according to the invention can be lifted at its one end side by a forklift; the loaded transport pallet then runs on support rollers at its other end. It is therefore possible to push the transport pallet into a freight container by means of a forklift stacker. The lateral guide rollers then ensure the lateral guiding of the transport pallet when it is inserted into the freight container.

[0007] Freight transfer of motor vehicles received on such transport pallets is thus simple and secure. Freight transfer takes place exclusively with a forklift stacker and not as heretofore by movement on its own axis, which would require, for example, a considerable cost for palletizing for air transport. Transfer from trucks to air freight pallets or loading into a sea freight container takes place in a simple and time-saving manner.

[0008] According to a preferred embodiment of the invention, it is provided that lateral binding eyelets are arranged near the front end and near the rear end of the transport pallet, and make it possible to bind the transport pallet itself in a freight container or on an air freight pallet.

[0009] Preferably a respective group of binding eyelets, mutually offset in the longitudinal direction, is arranged near the front end and near the rear end of the transport pallet. It is thereby ensured that a respective one of these binding eyelets is aligned with one of the binding eyelets present in freight containers and thereby makes a secure connection possible.

[0010] The invention also relates to the use of such a transport pallet for shipping freight, such as a motor vehicle, a machine, or the like, in a freight container. On both sides of the transport pallet, respectively a binding belt fastened forward in the freight container is passed through one of the forward binding eyelets of the transport pallet, through a rear binding eyelet of the freight container, and through one of the rear binding eyelets of the transport pallet, and is fastened.

[0011] This guiding of the binding belts takes place while the transport pallet is pushed into the freight container by means of a forklift stacker. It is then not necessary that an operator remains inside the freight container, since the threading of the binding belts into the binding eyelets of the transport pallet takes place preponderantly still outside the freight container. Therefore freight can also be loaded for which a sufficient distance from the walls of the freight container no longer exists. For example, motor vehicles can be loaded which are so wide that sufficient space for an operator no longer exists between the vehicle and the freight container wall. Likewise, the transport pallet with the motor vehicle or another item of freight bound fast to it is sufficiently fastened in the freight container. It is also not necessary for an operator to be active himself in the freight container for the removal of the loaded transport pallet from the freight container. It is sufficient to release the binding belts at the rear end of the transport pallet, to lift the transport pallet at its rear end by means of a forklift stacker, and to pull it out of the freight container.

[0012] The invention is explained in detail hereinafter with an embodiment example which is shown in the drawings.

[0013] FIG. 1 shows a transport pallet with extended on-ramps for receiving a motor vehicle,

[0014] FIG. 2 shows the transport pallet according to claim 1 with on-ramps retracted or removed,

[0015] FIG. 3 shows schematically the insertion of a transport pallet into a freight container.

[0016] FIGS. 4-6 show, in schematic outline diagrams, successive steps in the loading of a freight container with a transport pallet, and

[0017] FIG. 7 shows the transport pallet received in a freight container, in an outline diagram.

[0018] The transport pallet shown has a baseplate 2 of steel sandwich construction, on whose surface are formed two spaced-apart travel tracks 3. An on-ramp 4 can be pulled out from the baseplate 2 in extension of each respective travel track 3 and facilitates a motor vehicle moving on, particularly an automobile.

[0019] The received vehicle can be bound in a conventional manner over its tires by means of wheel clamping belts (not shown).
Two lateral fork pockets 5 extend through from one side to the other of the transport pallet I and make it possible to lift this up from the side with a forklift stacker and to transport it.

Two fork pockets 6 are provided at the rear end of the baseplate 2 (right-hand in FIGS. 1 and 2) between the two travel tracks 3, and a forklift stacker can engage in them to lift up the transport pallet 1 at its rear end. Two support rollers 7 with horizontal axes are mounted at the opposite, front, end of the transport pallet 1, and extend downward over the baseplate 2, and the baseplate 2 can be pushed onto them.

Lateral guide rollers 8 with vertical rotation axes are mounted on both sides, near to the front end. Further lateral guide rollers 8 are likewise mounted with vertical rotation axis, about in the middle region of the transport pallet 1.

As shown schematically in FIG. 4, the loaded transport pallet 1 is set down by means of a forklift stacker 9 in front of an opened freight container 10. Anchoring points 11 are provided forward within the freight container 11, i.e., near its closed end on both sides, for respective binding belts 12, which at first are guided out loosely from the loading opening 13 of the freight container 10. Each of the two binding belts 12 is guided by a respective lateral binding eyelet 14 installed near the front end of the transport pallet 1.

As soon as the transport pallet 1 has been lifted up by means of the forklift stacker 9 engaging in the rear fork pockets 6, it is moved on its support rollers 7 into the freight container 10. In an intermediate position, the binding belts 12 are guided through rear binding eyelets 15 on the sidewalls of the freight container 10 and from there through rear binding eyelets 16 near the rear end of the transport pallet 1.

The free ends of the binding belts 12 are held fast, while the forklift stacker 9 moves the transport pallet 1 completely into the freight container 10. The binding belts 12 are then guided around deflecting posts 17 at the rear end of the transport pallet 1 (FIG. 7) as far as fastening fittings 18 on the baseplate 2, pulled taut and fastened there. In this position, which is shown in FIGS. 6 and 7, the transport pallet 1 is fixedly bound in the freight container 10 together with the freight fixed on it.

As can be seen in FIG. 7, a respective group of binding eyelets 14 or 16 is arranged, mutually offset in the longitudinal direction, near the front end and near the rear end of the transport pallet 1. It is thereby ensured that a respective one of the binding eyelets 14 or 16 is in aligned arrangement with the binding eyelets 11 or 15 on the container, even with different arrangement of the binding eyelets 11 and 15 on different freight containers 10, in order to receive the binding belt 12 in common.

The rear fork pockets 6 of the transport pallet 1 are provided on their upper side with a device which prevents slipping out of the forks of the forklift stacker in the raised state: for example, a lining with high frictional value, or a cross bolt.

In a like manner, as was described in the example of receiving in a sea freight container, the loaded transport pallet 1 can be set by means of a forklift stacker 9 on an air freight pallet and can be secured against slipping off by binding by means of the lateral binding eyelets.

1-4. (canceled)
5. Transport pallet for receiving freight, comprising:
a baseplate provided with binding devices for the freight and having fork pockets for forklift equipment comprising opened fork pockets provided at an end of a rear end of the baseplate;
at least two support rollers mounted at a front end of the baseplate;
lateral guide rollers at least proximate the front end of the transport pallet; and
lateral binding eyelets proximate the front end and a rear end of the transport pallet.
6. Transport pallet according to claim 5, wherein the baseplate has on-ramps at its rear end, the on-ramps being adapted to be pulled out or removed.
7. Transport pallet according to claim 5, wherein a plurality of lateral binding eyelets are mutually offset in the longitudinal direction and arranged proximate the front end and the rear end of the transport pallet.
8. Use of a transport pallet according to claim 5 for loading freight into a freight container comprising guiding and fastening a binding belt, the binding being fastened in the freight container on both sides of the transport pallet, through a forward one of the binding eyelets of the transport pallet, through a rear binding eyelet of the freight container, and through a rear one of the binding eyelets of the transport pallet.
9. Use of a transport pallet according to claim 6 for loading freight into a freight container comprising guiding and fastening a binding belt, the binding being fastened in the freight container on both sides of the transport pallet, through a forward one of the binding eyelets of the transport pallet, through a rear binding eyelet of the freight container, and through a rear one of the binding eyelets of the transport pallet.
10. Use of a transport pallet according to claim 7 for loading freight into a freight container comprising guiding and fastening a binding belt, the binding being fastened in the freight container on both sides of the transport pallet, through a forward one of the binding eyelets of the transport pallet, through a rear binding eyelet of the freight container, and through a rear one of the binding eyelets of the transport pallet.