## PATENT CLAIMS

1. A lifting apparatus (4) for moving a rotor block, which is arranged in a housing of an exhaust turbocharger, along the axis of rotation of the rotor contained in the rotor block, wherein the lifting apparatus (4) has a cantilever (5), which is provided for being fastened on a vertical stop of the housing surrounding the rotor block in an only support of the cantilever (5), wherein
   — the vertical stop, on which the cantilever (5) is fastened, is used for fastening an inner compressor housing,
   — the cantilever (5) comprises a supporting frame (51) with rails (52) arranged thereon and a carriage (53) guided on the rails, wherein the mounting devices (531, 532) for fastening an upper structure (6) that can be fastened on a vertical stop of the rotor block on the carriage (53) are arranged on the carriage (53), allowing the upper structure (6) to be moved with the aid of the carriage (53) along the rails (52) arranged on the supporting frame (51) of the cantilever (5).

2. The lifting apparatus as claimed in claim 1, wherein the support of the cantilever (5) is provided at one end of the cantilever (5).

3. The lifting apparatus as claimed in claim 1 or 2, wherein the carriage (53) is connected to a spindle nut (57), which is arranged on a threaded rod (55), making it possible to move the spindle nut (57) and thus the carriage (53) along the threaded rod (53) by rotating the threaded rod (55), wherein a spindle wheel (54) is preferably provided for rotating the threaded rod (55).

4. The lifting apparatus as claimed in claim 3, wherein a connection with play in the direction of the threaded rod (55) is provided between the spindle nut (57)

and the carriage (53), allowing the carriage (53) to be moved along the threaded rod (55) relative to the spindle nut (57) within the range of the play, even when the threaded rod (55) is not being rotated.

5. The lifting apparatus as claimed in one of claims 1 to 4, wherein the upper structure (6) comprises at least two vertically spaced fastening points (63, 66) for fastening the upper structure (6) on the rotor block (2) to be moved in the axial direction in the housing by means of the lifting apparatus (4), and wherein the at least two fastening points (63, 66) are connected to the carriage (53) by means of sectional bars (611,..., 616).

6. The lifting apparatus as claimed in claim 5, wherein the at least two vertically spaced fastening points (63, 66) are connected by means of the sectional bars to a tilting rod (62) and a vertical fastener (64), wherein these are each arranged in a horizontally spaced manner at different distances from the at least two vertically spaced fastening points (63, 66), and wherein the upper structure (6) is fastened by means of the tilting rod (62) and the vertical fastener (64) on mounting devices (531, 532) of the carriage (53), which are likewise spaced apart horizontally.

7. The lifting apparatus as claimed in one of claims 5 or 6, wherein at least one of the at least two vertically spaced fastening points (63, 66) comprises means for adjusting the alignment of the upper structure (6) relative to a rotor block fastened on the upper structure (6), wherein these means preferably comprise a threaded rod (631) and a nut (632).

8. The lifting apparatus as claimed in claim 6, wherein the vertical fastener comprises means for adjusting the alignment of the upper structure (6) relative

to the cantilever (5), wherein these means preferably comprise a threaded rod (642) and a nut (643), and the angular position of the upper structure (6) around the axis of the tilting rod (62) can be adjusted by means of the nut (643) and the threaded rod (642).

9. The lifting apparatus as claimed in one of claims 1 to 8, wherein a mounting bracket (7) is provided for fastening the cantilever (5) on a vertical stop of the housing.

10. A method for moving a rotor block, which is arranged in a housing of an exhaust turbocharger, along the axis of rotation of the rotor, which is contained in the rotor block, in said housing by means of a lifting apparatus (4) as claimed in one of claims 1 to 9, comprising the following steps:

— fastening the cantilever (5) of the lifting apparatus (4) on a vertical stop of the housing (14),

— fastening the upper structure (6) of the lifting apparatus (4) on the rotor block, and

— moving the upper structure (6) along the cantilever (5).