**Claims**

1. Cart for transporting an aircraft engine, comprising:

a base frame equipped with wheels for riding on a floor;

at least two engine arms extending horizontally and movable vertically relative to the base frame, structured and designed for supporting the aircraft engine; and

at least two adapter arms extending horizontally at a higher level than the at least two engine arms, structured and designed for supporting an adapter coupled at the top of the aircraft engine;

wherein each of the at least two engine arms and adapter arms extends towards a central longitudinal axis of the cart.

2. Cart according to claim 1, wherein the at least two engine arms are arranged on two opposed sides of the base frame.

3. Cart according to claim 1, wherein the at least two support arms are arranged on two opposed sides of the base frame.

4. Cart according to claim 3, wherein the at least two support arms are arranged on the two opposed sides of the base frame where the at least two engine arms are arranged.

5. Cart according to claim 1, wherein each of the at least two engine arms and of the at least two adapter arms comprises a free end with a recessed upper profile structured and designed for securely engaging with the aircraft engine and the adapter, respectively.

6. Cart according to claim 1, further comprising:

at least two posts extending rigidly from the base frame and carrying the at at least two engine arms and the at least two adapter arms.

7. Cart according to claim 6, wherein the at least two posts comprise at least four of said posts.

8. Cart according to claim 6, wherein the at least two posts comprise a guiding and driving assembly for each of the at least two engine arms.

9. Cart according to claim 1, wherein the at least two engine arms comprise:

two front engine arms in vis-à-vis and extending transversally to a central longitudinal axis of the cart; and

at least one rear engine arm structured and designed for pivoting horizontally between an active position extending transversally to the central longitudinal axis of the cart and an inactive position extending parallel to said central longitudinal axis.

10. Cart according to claim 1, wherein the at least two adapter arms are movable between an active position extending towards a central longitudinal axis of the cart and an inactive position freeing or widening, compared with the active position, a central area of access from above.

11. Cart according to claim 1, wherein the wheels are mounted on the base frame such that said base frame can be selectively lifted or lowered relative to said wheels.

12. Cart according to claim 1, wherein each of the wheels is steerable.

13. Cart according to claim 1, wherein at least two of the wheels are driven.

14. Method of transporting an aircraft engine to a test cell, comprising the following steps:

assembling the aircraft engine to a test nacelle attached to an adapter resting on a support; and

transporting the aircraft engine and test nacelle assembly to the test cell;

wherein the assembling and transporting steps are carried out using a cart comprising:

a base frame equipped with wheels for riding on a floor;

at least two engine arms; and

at least two adapter arms;

wherein the assembling step comprises the following sub-steps:

positioning and fixing the aircraft engine relative to the test nacelle while said aircraft engine is carried by the at least two engine arms;

lifting the at least two adapter arms so as to engage the adapter and carry the aircraft engine and test nacelle assembly.

15. Method according to claim 14, wherein the positioning and fixing sub-step comprises the following actions:

carrying a front portion of the aircraft engine with two front engine arms of the at least two engine arms and carrying a rear portion of said aircraft engine with a central post bearing on the base frame, while said rear portion is inserted into the test nacelle showing an opened lower portion;

deploying at least one rear engine arm of the at least two engine arms so as to carry the rear portion of the aircraft engine;

mating the aircraft engine relative to the test nacelle by moving the engine arms relative to the base frame; and

fixing the aircraft engine to the test nacelle.

16. Method according to claim 15, wherein the positioning and fixing sub-step further comprises, between deploying and mating actions:

removing the central post.

17. Method according to claim 14, wherein the lifting sub-step comprises lifting the base frame relative to the floor.

18. Method according to claim 14, wherein the assembling step comprises the following additional sub-step, between the positioning and fixing sub-step and the lifting sub-step:

releasing the at least two engine arms.

19. Method according to claim 14, wherein the cart is self-driven and steered during the assembling and transporting steps.