a) optionally applying at least one pre-stressing force to at least one of the first portion, the second portion and said sides of said part, said at least one pre-stressing force selected from the group compromising:

i) a longitudinal pre-stressing force applied to one of the first portion and the second portion relative to the other of the portion and the second portion, said longitudinal pre-stressing force being applied in a direction substantially perpendicular to said predetermined fracture plane, and

ii) a lateral pre-stressing force applied to each of the opposed sides of the part, each of said lateral pre-stressing forces being applied along substantially straight line that is substantially parallel to the predetermined fracture plane and substantially perpendicular to the central axis, where at any time instant, each of the lateral pre-stressing forces being substantially equal in magnitude and acting opposite in direction to one another;

b) applying at least one fatigue force to at least one of the first portion and the second portion, said at least one fatigue force being selected from the group comprising:

i) a longitudinal cyclic force applied to one of the first portion and the second portion relative to the other of the first portion and the second portion, said longitudinal cyclic force being applied in a direction substantially perpendicular to said predetermined fracture plane, and

ii) a lateral cyclic force applied to each of the opposed sides of the part, each of the said lateral cyclic forces being applied along a substantially straight line that is substantially parallel to the predetermined fracture plane and substantially perpendicular to the central axis, where at any time instant, each of said lateral cyclic forces being substantially equal in magnitude and acting opposite in direction to one another;

c) applying at least one dynamic force to one of the first portion and the second portion relative to the other of the first portion and the second portion, said at least one dynamic force being applied in a direction substantially perpendicular to said predetermined fracture plane, said dynamic force being applied to fracture the part into the first portion and the second portion so as to separate the first portion from the second portion substantially along said predetermined plane.

2. A process as claimed in claim **1**, wherein said at least one fatigue force is a harmonic force, the frequency of the harmonic forces is selected so as to achieve a resonance condition in said part.

3. A process as claimed in claim **1**, wherein said at least one dynamic force is applied during a time period centered on a time instant at which the deformed shape of the part is the closest to its original shape.

4. A process as claimed in claim **1**, wherein said at least one dynamic force is an impulsive force applied substantially at a time instant at which the deformed shape of the part is the closest to its original shape.

5. A process as claimed in claim **1**, wherein said at least one dynamic force is applied during a time period centered on a time instant at which the stress intensity factor corresponding to the at least one fatigue force has a maximum value.

6. A process as claimed in claim **1**, wherein said at least one dynamic force is an impulsive force applied substantially at a time instant at which the stress intensity factor corresponding to the at least one fatigue force has a maximum value.

7. A process as claimed in claim **1**, wherein said at least one pre-stressing force is said longitudinal pre-stressing force applied to one of the first portion and the second portion relative to the other of the first portion and the second portion, said longitudinal pre-stressing force being applied in a direction substantially perpendicular to said predetermined fracture plane.

8. A process as claimed in claim **1**, wherein said at least one pre-stressing force is said lateral pre-stressing force applied to each of the opposed sides of the part, each of said lateral pre-stressing forces being applied along a substantially straight line that is substantially parallel to the predetermined fracture plane and substantially perpendicular to central axis, where at any time instant, each of lateral pre-stressing forces being substantially equal in magnitude and acting opposite in direction to one another.

9. A process as claimed in claim **1**, wherein said part is a connecting rod, said first portion is a cap portion and said second portion is a rod portion.

10. A process as claimed in claim **1**, wherein said at least one fatigue force is said longitudinal cyclic force applied to one of the first portion and the second portion relative to the other of the first portion and the second portion, said longitudinal cyclic force being applied in a direction substantially perpendicular to said predetermined fracture plane.

11. A process as claimed in claim **1**, wherein said at least one fatigue force is said lateral cyclic force applied to each of the opposed sides of the part, each of said lateral cyclic forces being applied along a substantially straight line that is substantially parallel to the predetermined fracture plane and substantially perpendicular to the central axis, where at any time instant, each of lateral cyclic forces being substantially equal in magnitude and acting opposite in direction to one another.

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