

★★★ <第35回知的財産翻訳検定試験【第17回英文和訳】> ★★★

≪ 1 級課題 -機械工学- ≫

【解答にあたっての注意】

1. 問題の指示により和訳してください。
2. 解答語数に特に制限はありません。適切な箇所で行改行してください。
3. 課題文に段落番号がある場合、これを訳文に記載してください。
4. 課題は3題あります。それぞれの課題の指示に従い、3題すべて解答してください。

問1. 下記の従来技術の問題点に関する記述を和訳してください。細かい表現にはとらわれず、技術的内容を正確に和文で表現してください。

[0003] Propellers may be used at subsonic airspeeds, as at higher speeds when the blade speed approaches the speed of sound, drag, noise and propeller structural problems may be created. Even at typical operating speeds, balance and integrity of propeller must be maintained to prevent failure. Also, under typical operating conditions a propeller is subject to mechanical stresses that can produce cracking, fatigue or the like in the propeller, which can lead to catastrophic failure of the propeller that can even lead to the loss of the aircraft. Proactive testing and rework may be used to help prevent propeller failure.

[0004] As a part of aircraft maintenance, testing and rework may be performed on various aircraft parts and systems in an attempt to detect parts that may soon fail, or have accumulated enough use to be deemed ready for maintenance. However, such testing efforts though tending to improve aircraft reliability, tend to increase overall aircraft maintenance costs, and increase parts inventory as parts being tested must be replaced with ones taken from a spare parts inventory.

[0005] Time in maintenance, and the operations performed also tend to increase maintenance costs of an aircraft. At any given time a certain percentage of parts may be removed or switched out of the operation to be subjected to maintenance and testing. Before the part can be again be deemed suitable for use in service they might also have to be reworked or

refurbished as a result of the testing, or as a general practice. Such testing and rework procedures tend to take parts out of use further increasing maintenance costs. It may be desired to be able to test parts with speed, improved accuracy and lowered cost to improve overall maintenance costs. Accordingly it is desirable to continue to provide improved systems and methods of testing and maintaining aircraft parts such as propellers.

問 2 . 下記の半導体ウェハー用急速冷却炉の実施形態からの抜粋の、
STARTから***END***の範囲を和訳してください。翻訳対象範囲内に原文誤りがある場合、正しいと思われる内容に修正してその旨をメモするか、あるいは、原文通りの翻訳としてその旨をメモするか、いずれかの対処を行ってください。

(13) Referring now to FIG. 3, generally designated at 66 is a perspective view illustrating a combination plenum providing and supporting manifold of the FIGS. 1, 2 embodiments of the fast cool-down furnace of the present invention. The input and exhaust manifolds are generally the same, except that they have reflective symmetry, and each includes a first annular rim 68 for supporting on its inside surface the outer surface of the reaction vessel. A sealing material 70 is provided between the inside surface of the annular support rim 68 and the outside surface of the reaction vessel. Any suitable sealing member may be employed such as a high temperature fiber flax paper.

(14) An annular rim 72 of a diameter larger than the diameter of the rim 68 is concentrically mounted to the rim 68 by a sealing and strengthening web 74 welded perpendicularly to about the midpoint of the annular rim 68 and welded perpendicularly to the annular rim 72. The annular rim 72 supports with its inside surface the outside surface of the cylindrical member 58 (FIG. 1). An annular, high-temperature seal 76 is circumferentially provided between the confronting walls of the members 72, 58 (FIG. 1). Any suitable sealing material such as woven quartz or fiber flax paper can be employed.

START

(15) The region enclosed by the rims 68, 76 and the included wall 76, together with the proximate end of the thereby aligned and supported reaction vessel, define a distribution plenum and an exhaust plenum respectively at each of the ends of the fast cool-down furnace. A nipple 78 terminating on its free end in a strengthening flange 80 is welded or otherwise fastened to the annular rim 72. At the distribution plenum, input air is coupled thereto through the corresponding nipple of the distribution manifold via a suitable coupling. The exhaust plenum is coupled to ambient via a conduit opening to atmosphere coupled to the nipple of the exhaust manifold. Any other suitable means for moving air from the distribution to the exhaust plenums such as a negative pressure source may be employed without departing from the inventive concept.

END

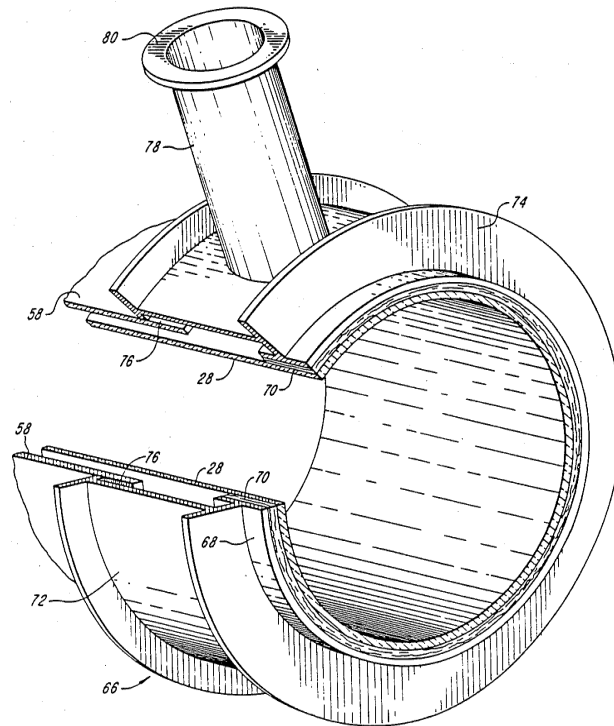


FIG. 3

問3. 次の装置クレームを添付の図面を参考にして和訳してください。

1. Fuel transport tank (1), comprising at least a first container (2) and at least a second container (3), said first container (2) being provided with at least a seat (20) in which said second container (3) is inserted in a removable manner; wherein said first container (2) comprises a lower base side (21) on which it can be rested during transport and an opposite upper side (22), wherein said seat (20) for said second container (3) is formed;

wherein said seat (20) is defined by a cavity which extends from said upper side (22) towards the inside of said first container (2), to allow said second container (3) to be inserted and extracted from above;

wherein said tank (1) comprises a lid (4) hinged to said first container (2) which, once closed, cover said seat (20) and said second container (3); wherein said first and said second container constitute a tank;

characterized in that said second container (3) and said seat (20) have a substantially similar shape, to define a male/female coupling, allowing said second container (3) inserted in said seat (20) a single degree of freedom of movement in the direction of extraction and insertion; and

wherein said first and said second container (2, 3) are each made in a single body piece.

Fig.1

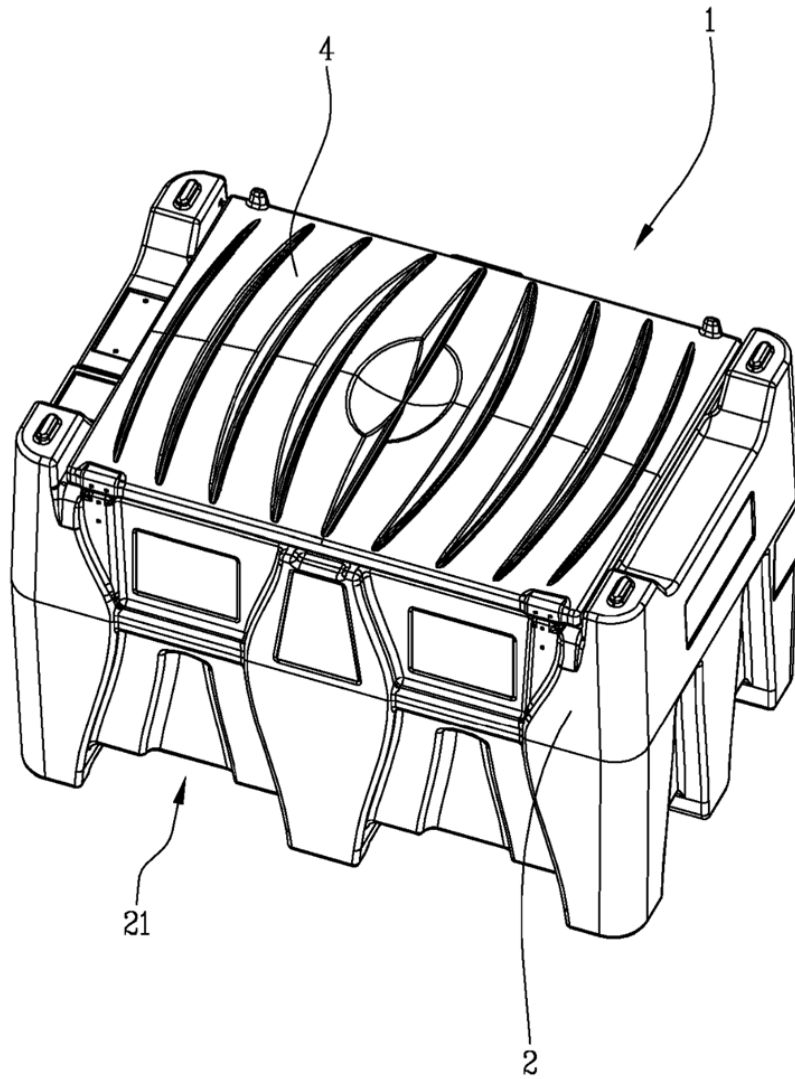


Fig.2

