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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* TOSHINORI TANAKA, KEIICHI FUKAZAWA,  
KYOUHEI YAMAMOTO, YOSHITAKA MASUDA,  
KENGO FUJIMOTO, HIROKAZU SAKUDA, MASAYASU  
MIYAJIMA, and YUUSUKE MATSUI

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Appeal 2011-004924  
Application 11/819,119  
Technology Center 3700

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Before: CHARLES N. GREENHUT, MICHELLE R. OSINSKI, and  
WILLIAM A. CAPP, *Administrative Patent Judges*.

GREENHUT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from a rejection of claims 1-4. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to a manufacturing method of a rotary electric machine. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A manufacturing method of a rotary electric machine including a steel-made cylindrical frame, a stator magnetic pole press-fitted and fixed on an inner circumferential surface of the cylindrical frame, and a rotor arranged via a gap to an inner circumferential side of the stator magnetic pole, and a liquid sealing agent being applied to a contact surface between the frame and an aluminum housing which is brought into contact with the frame, comprising the steps of:

forming the frame by press-forming a surface-treated steel plate into a bottomed cylindrical shape, the surface treated steel plate including a plating layer consisting essentially of aluminum, magnesium, silicon and zinc on a surface of a steel plate, and a lubricant coating which is formed on and joined to the plating layer by formation treatment;

press-fitting an outer periphery of a stator iron core of the stator magnetic pole into the inner circumferential portion of the frame;

arranging the rotor via the gap to the inner circumferential side of the stator magnetic pole; and

painting the contact surface between the frame and the housing with the frame with liquid sealant.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Stark

US 5,767,596

Jun. 16, 1998

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Tabata	US 6,037,726	Mar. 14, 2000
Tanaka	US 2004/0134708 A1	Jul. 15, 2004
Saito <sup>1</sup>	JP 06173037 A	Jun. 21, 1994

Morimoto et al., Excellent Corrosion-resistant Zn-Al-Mg-Si Alloy Hot-dip Galvanized Steel Sheet 'SUPER DYMA' Nippon Steel Technical Report, no 87, Jan 2003, pp. 24-26. (Hereinafter "Morimoto")

### REJECTION

Claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of in view of Stark, Morimoto, Saito and Tabata. Ans. 3.

### OPINION

*The rejection under 35 U.S.C. § 103(a) is affirmed.*

Appellants argue claims 1-4 as a group. App. Br. 9-13. We select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2011).

The Examiner made the following findings that Appellants do not dispute: Tanaka discloses the claimed invention except for the steel plate having a plating layer and a lubricant coating, and painting the contact surface between the frame and an aluminum housing with liquid sealant comprising silicone. Ans. 3-4. Stark teaches a stator core pressed into a steel can frame formed by press-forming, and the steel plate having an anti-corrosive plating containing aluminum and silicon. Ans. 4, *citing* col. 6, ll. 63-67; col. 7, ll. 14-21. Morimoto teaches an anti-corrosive plating on a steel plate containing 11 % by mass of aluminum, 3% by mass of magnesium, 0.2% by mass of silicon and the remaining part zinc. Ans. 4, *citing* Morimoto Fig. 5, section 2, p. 24. Saito teaches forming a lubricating

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<sup>1</sup> References are to the English language translation of Saito provided by the Examiner on September 14, 2010.

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coating 4 having a thickness of approximately 1 micron (0.2-5 microns) on a zinc plated 2 steel plate 1 by means of a chemical conversion layer 3. Ans. 4-5, *citing* abstract, fig. 1. Tabata teaches a liquid silicone sealant is applied between a contact surface of a frame containing the stator core and a housing. Ans. 5, *citing* fig. 2.

Appellants argue that the Examiner fails to make the finding that one skilled in the art would have a reasonable expectation of success in, and predictable results would follow from, applying Saito's<sup>2</sup> lubricating layer to Morimoto's plating. App. Br. 10; Reply Br. 4. The basis for Appellants' argument is Appellants' assumption that Saito's chemical conversion film 3 must be omitted in order to meet the claim language "formed on and joined to." Appellants contend that if the conversion film is omitted, there is no way of knowing if the lubricating layer 4 would be successful or yield predictable results. App. Br. 10. However, the Examiner never proposes to omit the conversion film. Ans. 9. Rather, the Examiner concludes that even if Saito's conversion film is included, the lubricating layer 4 would still be "formed on and joined to" the plating layer when that phrase is given its broadest reasonable interpretation in light of the Specification. *Id.*

Appellants do not dispute that one skilled in the art would have a reasonable expectation that Saito's lubricating and conversion layer, which is applied to a zinc-based plating 2, could be successfully applied to Morimoto's zinc-based plating. Nor do Appellants apprise us of any error in the Examiner's finding that the predictable results of combining the lubricating layer of Saito

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<sup>2</sup> Since we see no need to rely on more than the translation of the abstract of Saito provided by the Examiner on October 13, 2009, we need not reach Appellants' argument regarding the Examiner's allegedly improper use of the full translation of Saito (Reply Br. 6). In any case, Appellants' remedy would be by way of petition. *See* MPEP 1207.03(IV)

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would be “to eliminate the need for press oil when press-forming the steel plate into the bottomed cylindrical frame.” Ans. 5.

Appellants argue that Saito does not require the lubricating layer for the same purpose as the Appellants. App. Br. 11. We note that there is no disclosure in the Saito reference that the lubricating layer disappears after the press-fitting step, meaning the lubrication remains useful after manufacturing.<sup>3</sup> Further, it is not necessary for the prior art to serve the same purpose as that disclosed in Appellants’ Specification in order to support the conclusion that the claimed subject matter would have been obvious. *See In re Linter*, 458 F.2d 1013, 1016 (CCPA 1972).

We turn to Appellants’ argument that if the conversion layer is included, Saito fails to teach that the lubricant coating is “formed on and joined to” the plating layer as required by claim 1. App. Br. 10. First, Appellants do not apprise us of any language in the claims or the Specification that requires the lubricating layer to be *directly* formed on the zinc-based plating layer. Ans. 9. Second, the claim uses open-ended, as opposed to restrictive, language to define the “lubricant coating.”<sup>4</sup> Appellants do not apprise us of any language in the claims or the Specification precluding interpretation of the combination of the chemical conversion film and lubricating layers of Saito, as the recited “lubricant coating.”

Appellants additionally argue that the combination of Tanaka, Stark and Morimoto is the result of a conclusory statement of obviousness by the

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<sup>3</sup> The phrase “having *on* degradation in the film due to processing,” should apparently read “having *no* degradation in the film due to processing.” Saito, abstract. This further evidences that the lubricating coating has utility after press forming.

<sup>4</sup> *See also e.g.*, dependent claim 4.

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examiner and that the plating in Morimoto does not have improved corrosion properties over Stark. App. Br. 11-12; Reply Br. 4-5. This argument is misplaced. Appellants repeatedly address a position never taken by the Examiner. *Cf.* App. Br. 11-12 *and* Reply Br. 4-5 *with* Ans. 11-12. As discussed above, there is no dispute that the basic method recited is disclosed by Tanaka and the specific plating layer is disclosed by Morimoto. The Examiner relies on Stark to demonstrate that the technique of plating motors like that of Tanaka, and the motivation to do so, to resist corrosion, were known in the art. Ans. 4, *citing* Stark col. 7, ll. 14-21. The Examiner correctly concludes that, in light of the above teachings, it would have been obvious to one of ordinary skill in the art when assembling Tanaka's motor, to have applied Morimoto's plating according to the technique, and for the reason, described by Stark in order to arrive at the claimed subject matter.

Appellants argue that the Examiner arrived at the present rejection using the Appellants' own Specification and therefore impermissible hindsight. App. Br. 12-13. However, Appellants have not supported this argument with any evidence or reasoning demonstrating specifically what knowledge the Examiner gleaned only through Appellants' own Specification in order to reach a conclusion of obviousness. "Common sense teaches . . . in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR Intern. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742 (2007).

#### DECISION

The Examiner's rejection of claims 1-4 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

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AFFIRMED

MP