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STAUBACH, CARL C

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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* TAKERU OKABE, OSAMU ISHIKAWA, TOMOHISA SHODA,  
HIDEAKI TANI, and TORU TANAKA

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Appeal 2014-007205  
Application 13/276,405<sup>1</sup>  
Technology Center 3700

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Before MICHAEL C. ASTORINO, KEVIN W. CHERRY, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

ASTORINO, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1–7. We have jurisdiction over the appeal under 35 U.S.C. § 6(b). An oral hearing was held on November 4, 2016.

We AFFIRM-IN-PART.

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<sup>1</sup> According to the Appellants, “Mitsubishi Electric Corporation is the real party in interest.” Appeal Br. 2.

STATEMENT OF THE CASE

*Claimed Subject Matter*

Claims 1 and 7 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A control device for an internal combustion engine, comprising:

an idle-stop control section for stopping fuel injection in response to generation of an automatic stop request to stop the internal combustion engine and restarting the internal combustion engine in response to generation of a restart request; and

an intake-air amount control section for setting a control amount of an intake system for controlling an intake air amount of the internal combustion engine so that the intake air amount becomes approximately zero when an intake-pipe pressure of the internal combustion engine at time of the generation of the automatic stop request is higher than a predetermined pressure and setting the control amount of the intake system so that the intake air amount becomes larger than the intake air amount at the time of the generation of the automatic stop request until the intake-pipe pressure becomes equal to the predetermined pressure and then the intake air amount becomes approximately zero when the intake-pipe pressure is lower than the predetermined pressure.

*Rejections<sup>2</sup>*

Claims 1, 5, and 7 are rejected under 35 U.S.C. § 102(b) as clearly anticipated by Sato (US 6,305,343 B1, iss. Oct. 23, 2001).

Claim 2 is rejected under 35 U.S.C. § 103(a) as unpatentable over Sato and Tetsuno (US 7,079,941 B2, iss. July 18, 2006).

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<sup>2</sup> The rejection of claim 4 under 35 U.S.C. § 112, second paragraph, as indefinite is withdrawn. Ans. 7.

Claims 3 and 4 are rejected under 35 U.S.C. § 103(a) as unpatentable over Sato and Takamiya (US 7,720,591 B2, iss. May 18, 2010).

Claim 6 is rejected under 35 U.S.C. § 103(a) as unpatentable over Sato and Mauritz (US 2011/0184626 A1, iss. July 28, 2011).

## ANALYSIS

*Rejection of claims 1, 5, and 7 under 35 U.S.C. § 102(b) as clearly anticipated by Sato*

The Appellants advance arguments for rejection of claims 1, 5, and 7, which are directed to a single underlying point, specifically that “Sato does not disclose basing the intake air amount on a *predetermined pressure*.” Appeal Br. 8–9 (emphasis added). For example, the Appellants contend that Sato’s disclosure of “[m]erely placing the throttle-intake valve position Ltb at a fixed position does not equate to a constant or predetermined pressure” (*id.* at 6–7) and that Sato “bases its control on a measured or calculated value of the amount Ai of intake air measured by the mass airflow sensor 38. . . . Thus, Sato does not disclose basing the intake air amount on a predetermined pressure” (*id.* at 8–9). *See also* Reply Br. 4–6. After considering the Examiner’s findings and explanations that run counter to the Appellants’ argument (*see* Ans. 3–4, Ans. 7–13), we agree with the Appellants’ argument.

Thus, the Examiner’s rejection of claims 1, 5, and 7 under 35 U.S.C. § 102(b) as clearly anticipated by Sato is not sustained.

*Rejection of claim 2 under 35 U.S.C. § 103(a) as unpatentable over Sato and Tetsuno*

Dependent claim 2 recites, with added emphasis:

2. A control device for an internal combustion engine according to claim 1, wherein *the predetermined pressure comprises an intake-pipe pressure at which a fluctuation in rotation speed of the internal combustion engine becomes equal to or smaller than a predetermined amount at time of the restarting the internal combustion engine* and an air amount in a cylinder of the internal combustion engine at time of the generation of the restart request becomes equal to or larger than an air amount necessary for combusting a fuel supplied to the cylinder.

The Examiner finds that Sato fails to disclose, but that Tetsuno discloses, the limitation directed to “predetermined pressure” as required by claim 2. Final Act. 5. The Examiner concludes that “[i]t would have been obvious to one skilled in the art at the time of the invention to modify Sato’s predetermined intake pipe pressure with Tetsuno’s predetermined intake pipe pressure setting in order to reduce discomfort to the driver.” *Id.* Here, the Examiner’s rejection of claim 2 includes a finding that cures the deficiency of the Examiner’s rejection of claim 1, as discussed above. In other words, for the rejection of claim 2 the Examiner does not rely on Sato to teach the claim requirement concerning the “predetermined pressure” but instead relies on Tetsuno.

The Appellants have not provided further argument for the rejection of claim 2 under 35 U.S.C. § 103(a) as unpatentable over Sato and Tetsuno. Rather, the Appellants assert that “[c]laims 2[-]7 stand or fall in accord with the merits of claim 1 as argued herein.” Appeal Br. 7. The Appellants’ assertion is not persuasive because it fails to explain error in the Examiner’s

finding that Tetsuno teaches the claimed limitation concerning “predetermined pressure.” *See* Final Act. 5.

Thus, the Examiner’s rejection of claim 2 under 35 U.S.C. § 103(a) as unpatentable over Sato and Tetsuno is sustained.<sup>3,4</sup>

*Rejections of claims 3 and 4 under 35 U.S.C. § 103(a) as unpatentable over Sato and Takamiya and claim 6 under 35 U.S.C. § 103(a) as unpatentable over Sato and Mauritz*

The remaining rejections of claims 3, 4, and 6 are based on Sato in combination with Takamiya or Mauritz and rely on the same erroneous finding discussed above with regard to the rejection of claim 1. *See* Final Act. 5–7. As such, we do not sustain the rejections under 35 U.S.C. § 103(a) of: claims 3 and 4 as unpatentable over Sato and Takamiya; and claim 6 as unpatentable over Sato and Mauritz.

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<sup>3</sup> Although claim 2 depends from claim 1, claim 1 was not rejected under 35 U.S.C. § 103(a) as unpatentable over Sato and Tetsuno. Hence, a rejection of claim 1 under 35 U.S.C. § 103(a) as unpatentable over Sato and Tetsuno cannot be affirmed because it has not been presented on appeal. At this time, we decline to add a new ground of rejection of claim 1 under 35 U.S.C. § 103(a) as unpatentable over Sato and Tetsuno. We leave that determination to the Examiner’s discretion.

<sup>4</sup> In the oral hearing the Appellants suggested that the Examiner’s rejection of claim 2 under 35 U.S.C. § 103(a) is deficient for reasons separate than those provided for the rejection of claim 1 under 35 U.S.C. § 102(b). *See* Transcript 8–10 (the Appellants appear to contend that the use of pressure in Tetsuno’s control system does not correlate with the use of pressure of Sato’s control system).

DECISION

We AFFIRM the Examiner's decision rejecting claim 2 under 35 U.S.C. § 103(a) as unpatentable over Sato and Tetsuno.

We REVERSE the Examiner's decision rejecting: claims 1, 5, and 7 under 35 U.S.C. § 102(b) as clearly anticipated by Sato; claims 3 and 4 under 35 U.S.C. § 103(a) as unpatentable over Sato and Takamiya; and claim 6 under 35 U.S.C. § 103(a) as unpatentable over Sato and Mauritz. 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).

AFFIRMED-IN-PART