

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [61 FR 47809 NO. 177 09/11/96]

[Docket No. 95-ANE-30; Amendment 39-9738; AD 96-18-14]

RIN 2120-AA64

Airworthiness Directives; Hartzell Propeller Inc. HC-A3V, HC-B3M, HC-B3T, HC-B4M, HC-B4T, and HC-B5M Series Propellers

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to Hartzell Propeller Inc. (Hartzell) HC-A3V, HC-B3M, HC-B3T, HC-B4M, HC-B4T, and HC-B5M series propellers, that requires hub replacement over a 10-year time period with a concurrent blade and blade clamp inspection. This amendment is prompted by reports of two propeller hub failures and one crack indication that occurred on Mitsubishi MU-2B-60 aircraft, the similarity of construction and load transfer paths between the Hartzell propeller models installed on the Mitsubishi MU-2 aircraft and Hartzell's 3, 4, and 5-bladed steel hub propeller models, several blade shank failures, and reports of cracks in blade clamps. The actions specified by this AD are intended to prevent propeller hub, blade, or blade clamp failure, which can result in loss of aircraft control.

DATES: Effective October 16, 1996.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 16, 1996.

ADDRESSES: The service information referenced in this AD may be obtained from Hartzell Propeller Inc., One Propeller Place, Piqua, OH 45356-2634, ATTN: Product Support; telephone (513) 778-4388, fax (513) 778-4321. This information may be examined at the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tomaso DiPaolo, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Ave., Des Plaines, IL 60018; telephone (847) 294-7031, fax (847) 294-7834.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to Hartzell Propeller Inc. (Hartzell) HC-A3V, HC-B3M, HC-B3T, HC-B4M, HC-B4T, and HC-B5M series propellers was published in the Federal Register on April 26, 1996 (61 FR 18520). That action proposed to require over a 10-year time period, propeller hub replacement with a concurrent blade and blade clamp inspection for Hartzell Propeller Inc. Models HC-A3VF-7(), HC-B3TF-7(), HC-B3MN-3(), HC-B3TN-2(), HC-B3TN-3(), HC-B3TN-5(), HC-B4MN-5(), HC-B4MP-3(), HC-B4TN-3(), HC-B4TN-5(), HC-B5MA-3(), HC-B5MP-3(), HC-B5MP-5(), HC-B3MN-5(), HC-B3TN-4(), HC-B4MP-4(), and HC-B5MN-3() propellers.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Commenters state that the AD should be modified to limit the affected propellers to those installed on engine types similar to those in Mitsubishi MU-2 aircraft. The commenters also state that their service history has shown that this engine type has more problems and that the NPRM documents that only propellers on the Mitsubishi MU-2 aircraft have been found with cracked hubs. The FAA does not concur. Regardless of engine types, the 3, 4, and 5-bladed hubs have similar loading and load paths to the failed propellers and, in addition, could contain characteristics that the FAA has determined can cause a reduction in hub fatigue strength. The NTSB has also recommended addressing the same hub fatigue strength characteristics for the 3,

4, and 5-bladed hubs. This hub replacement program will provide the following hub fatigue strength improvements: 1) Improved hub metallurgy; 2) Elimination of any surface decarburization in the pilot tube bore; 3) Introduction of compressive residual stress in the pilot tube bore; 4) Improved corrosion protection in the pilot tube bore; and 5) Improved surface finish in the pilot tube bore.

Additionally, the commenters state that the cost of complying with the proposed AD is severely understated and will increase overhaul costs. Therefore, they imply that the proposed AD should be withdrawn or limited in scope. The FAA does not concur. The costs documented in the AD are weighted average costs. For example, individual operators with five-bladed propellers will have costs that run higher than the weighted average costs. Therefore, the costs stated in the AD should not be construed as understated. Concerning the increase in overhaul costs comment, the FAA has determined that the required actions are necessary to address an unsafe condition. While those required actions may increase maintenance costs, those increased costs are balanced by achieving a level of safety that protects against further failures. However, if the operator complies with the proposed AD at overhaul, the cost is lower than accomplishing the AD action by itself.

Since issuance of the NPRM, the FAA has determined that relief can be given to the compliance schedule. Therefore, the dates for hub replacement and inspections are shifted three months for all affected propellers. Table 1 now reflects the denoted three month calendar shift.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

There are approximately 24,320 propellers of the affected design in the worldwide fleet. The FAA estimates that 50% of the subject propellers are installed on aircraft of U.S. registry and that 75% will have the work done during normally scheduled propeller maintenance. For those who accomplish the AD action during normal propeller maintenance, the parts cost will average \$1,955 with no additional labor. For those who accomplish the AD action by itself, the parts cost will average \$2,174, plus approximately 27 work hours per propeller at an average labor rate of \$60 per work hour. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be \$29,363,360. The cost will vary between the 3, 4, and 5-bladed propeller configurations and the above data represents an average cost.

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air Transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 USC 106(g), 40113, 44701.

§39.13 - [AMENDED]

2. Section 39.13 is amended by adding the following new airworthiness directive:

96-18-14 Hartzell Propeller Inc. : Amendment 39-9738. Docket 95-ANE-30.

Applicability: Hartzell Propeller Inc. (Hartzell) Models HC-A3VF-7(), HC-B3TF-7(), HC-B3MN-3(), HC-B3TN-2(), HC-B3TN-3(), HC-B3TN-5(), HC-B4MN-5(), HC-B4MP-3(), HC-B4TN-3(), HC-B4TN-5(), HC-B5MA-3(), HC-B5MP-3(), HC-B5MP-5(), HC-B3MN-5(), HC-B3TN-4(),

HC-B4MP-4(), and HC-B5MN-3() propellers. These propellers are installed on but not limited to the following aircraft:

Aerospace Technologies of Australia PTY LTD N22B, N24A, N22S;

Air Tractor, Inc. AT-301, AT-302, AT-400, AT-400A, AT-401, AT-402, AT-502, AT-503, AT-802;

Agusta S.p.A. SF600, F.260;

Ayres Corporation S-2R, S2R-T11, S2R-T15, S2R-T34, S2R-T56, S2RHG-T65;

Beech A36, 65-90, 65-90A, C90, B90, E90, C90A, F90, 100, 200, 200C, A200C, B200, B200C, 200T, 200CT, A200CT, B200T, B200CT, 65-80, 65-A90-1, 65-A90-2, 65-A90-4, 99, 99A, A99A, B99, A200, C99, H90, 300, 300LW, B300, B300C, 1900, 1900C, T34C, T34C-1;

Cessna 208, 208A, 208B, 421, 425, 441, 402, P210N;

Construcciones Aeronauticas, S.A. (CASA) C-212-CB, -CC, -CE, -CF;

deHavilland Aircraft Co., Ltd. D.H.114;

deHavilland Inc. DHC-2, DHC-3, DHC-4; DHC-6, 1, 100, 200, 300;

Empresa Brasileira de Aeronautica S/A Embraer EMB-110P1, EMB-110P2;

Fairchild Aircraft, Inc. SA26-AT, -T; SA226-AT, -TB;

Frakes Aviation (Gulfstream American) G-73;

Great Lakes Aircraft Co. 2T-1A;

Helio HST-550, HST-550A;

Industrie Aeronautiche e Meccaniche Piaggio P.166DL3;

Israel Aircraft Industries, Ltd. Arava 101, 101B;

McDonnell Douglas DC-3 series;

McKinnon Enterprises, Inc. (Grumman) G-21E, G21-G;

Mitsubishi MU-2B series;

Pacific Aerospace Corporation, Ltd. FU24-954, FU24A-954;

Partenavia Costruzioni Aeronautiche S.p.A. AP68TP 300, AP68TP 600;

Pilatus Aircraft Ltd. PC-6/A-H2, /B1-H2, /B-H2, /B2-H2, /B2-H4, PC-7;

Piper Aircraft Corporation PA31-T1, -T2, -T3; PA31P; PA42, -42-720, -42-720R;

Prop-Jets, Inc., Interceptor (Aero Commander) (Meyers) 400;

Schweizer Aircraft Corp. (Grumman) G-164A, G-164B, G-164B-34T, -15T, G-164D;

Short Bros. Limited & Harland Ltd. SC-7 series, SD3 series;

Twin Commander Aircraft Corp. 680T, V, 681, 690A, 690B, 690C, 695, 695A;

Weatherly Aviation Company 620TP.

Note 1: The parenthesis that appear in the propeller models indicate the presence or absence of additional letter(s) which vary the basic propeller hub model designation. This airworthiness directive (AD) is applicable regardless of whether these letters are present or absent on the propeller hub model designation.

Note 2: The above is not a complete list of aircraft which may contain the affected Hartzell Propeller Inc. Models HC-A3VF-7(), HC-B3TF-7(), HC-B3MN-3(), HC-B3TN-2(), HC-B3TN-3(), HC-B3TN-5(), HC-B4MN-5(), HC-B4MP-3(), HC-B4TN-3(), HC-B4TN-5(), HC-B5MA-3(), HC-B5MP-3(), HC-B5MP-5(), HC-B3MN-5(), HC-B3TN-4(), HC-B4MP-4(), and HC-B5MN-3() propellers because of installation approvals made by, for example, Supplemental Type Certificate or field approval under FAA Form 337 "Major Repair and Alteration." It is the responsibility of the owner, operator, and person returning the aircraft to service to determine if an aircraft has an affected propeller.

Note 3: This AD applies to each propeller identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For propellers that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must use the authority provided in paragraph (h) to request approval from the Federal Aviation Administration (FAA). This approval may address either no action, if the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any propeller from the applicability of this AD.

Compliance: Required as indicated, unless accomplished previously.

To prevent propeller hub, blade, or blade clamp failure, which can result in loss of aircraft control, accomplish the following:

(a) This AD requires no action for operators with Hartzell propeller models HC-B4TN-5(D,G,J)L/LT10282(B,K)-5.3R, HC-B4TN-5(D,G,J)L/LT10282N(B,K)-5.3R, and HC-B4TN-5(D,G,J)L/LT10282NS(B,K)-5.3R installed on Mitsubishi MU-2B-26A, -36A, -40, -60; MU-2B-30

modified by Supplemental Type Certificate (STC) SA336GL-D & SA339GL-D; MU-2B-36 Modified by STC SA2413SW and any other MU-2 Series aircraft which have the referenced propeller models installed. These operators must, however, comply with AD 95-01-02.

(b) This AD requires no action for operators with Hartzell propeller models HC-B4TN-3/T10173F(N)(B,K)-12.5 and HC-B4TN-3A/T10173F(N)(B,K)-12.5 installed on Beech A100 and A100A aircraft. These operators must, however, comply with AD 95-03-03.

(c) Disassemble the propeller in accordance with Hartzell Propeller Inc. Service Manual 118F, Revision 2, dated May 1992, pages 15 to 19, for 3- and 4-bladed hub models, and Service Manual 132A, Revision 2, dated June 1992, pages IV-5 to IV-11, for 5-bladed hub models, remove the hub from service, and replace the hub with a serviceable hub in accordance with the compliance schedule in Table 1 of this AD.

(1) Utilize Table 1 of this AD in accordance with the following example: Model HC-B3TN-3() series propellers, starting with serial numbers (S/N's) BU1 through BU377, require replacement before the end of March of calendar year 1997. Serial numbers BU378 through BU754 require hub replacement before the end of September of calendar year 1997, and so forth.

(2) The affected hubs can only be replaced with serviceable hubs having a S/N not listed in Table 1 of this AD for that propeller model, or serviceable hubs having a S/N for which replacement is not yet required in accordance with Table 1 of this AD.

(3) Some existing propeller hub S/N's include a suffix letter, such as an "A." The presence or absence of this letter has no significance in determining compliance.

(4) Since a hub may be used in various propeller models, the S/N and the model number shown in Table 1 of this AD may not coincide. Precedence is given to the hub S/N in determining compliance requirements. The hub model is only given as a reference.

(5) Hub replacement must be accomplished by the end of the calendar month indicated at the top of the appropriate column in Table 1 of this AD. The S/N ranges in this table identify the propeller hubs that require replacement by the end of that month.

(d) Perform a fluorescent penetrant inspection of blades for cracks in accordance with Hartzell Propeller Inc. Service Bulletin 136H, dated March 12, 1993, prior to installing a serviceable hub.

(e) Perform magnetic particle inspection of blade clamps for cracks in accordance with Hartzell Service Manual 202A, dated March 1993, pages 201 to 215, prior to installing a serviceable hub.

(f) If cracks are found in either the blade or the blade clamps, prior to further flight replace with serviceable blade or blade clamps.

(g) Reassemble the propeller in accordance with Hartzell Propeller Inc. Service Manual 118F, Revision 2, dated May 1992, pages 57 to 96, for 3- and 4-bladed hub models, and Service Manual 132A, Revision 2, dated June 1992, pages VII-1 to VII-46, for 5-blade hub models.

(h) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office. The request should be forwarded through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Chicago Aircraft Certification Office.

Note: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Chicago Aircraft Certification Office.

(i) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(j) The actions required by this AD shall be done in accordance with the following service documents:

| Document No | Pages | Date |
|--|-------|----------------|
| Hartzell Propeller Inc. SB No. 136H | 1-18 | March 12, 1993 |

Total Pages: 18.

Hartzell Propeller Inc.
Service Manual

| | | |
|--|--------------------|------------------------|
| No. 202A | 201-215 | March 1993 |
| Total Pages: 15. | | |
| TRW Hartzell Propeller Overhaul Manual No. 118-E | 57, 58 | April 1985 |
| Hartzell Propeller Inc. Manual No. 118F, Revision 2 | 59, 60 | May 1992 |
| TRW Hartzell Propeller Overhaul Manual No. 118-E | 61-83 | April 1985 |
| Hartzell Propeller Inc. Manual No. 118F, Revision 2 | 84, 84a, 84b | May 1992 |
| TRW Hartzell Propeller Overhaul Manual No. 118-E | 85, 86 | April 1985 |
| Hartzell Propeller Inc. Manual No. 118F, Revision 2 | 87 88, 88a, 88b | April 1985 May 1992 |
| TRW Hartzell Propeller Overhaul Manual No. 118-E | 89-96 | April 1985 |
| Total Pages: 44. | | |
| Hartzell Propeller Products Division Instruction Manual No. 132-A | VII-1 - VII-30 | September 1, 1985 |
| Hartzell Propeller Inc. Instruction Manual No. 132-A | VII-31 | September 1, 1985 |
| Hartzell Propeller Inc. Manual No. 132A | VII-32 | No Date |
| Hartzell Propeller Products Division Instruction Manual No. 132-A | VII-33-VII-40 | September 1, 1985 |
| Hartzell Propeller Inc. Instruction Manual No. 132-A | VII-41 | September 1, 1985 |
| Hartzell Propeller Inc. Manual No. 132A, Revision #1 | VII-42, VII-43 | April 1990 |

Hartzell Propeller Inc.
Instruction
Manual No. 132-A

VII-44

September 1, 1985

Hartzell Propeller Inc.
Manual No. 132A,
Revision #1

VII-45, VII-46

April 1990

Total Pages: 46.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Hartzell Propeller Inc., One Propeller Place, Piqua, OH 45356-2634, ATTN: Product Support; telephone (513) 778-4388, fax (513) 778-4321. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street NW., suite 700, Washington, DC.

(k) This amendment becomes effective on October 16, 1996.

FOR FURTHER INFORMATION CONTACT: Tomaso DiPaolo, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Ave., Des Plaines, IL 60018; telephone (847) 294-7031, fax (847) 294-7834.

Table 1

| | Replacement is due by end of: | March 1997 | Sept. 1997 | March 1998 | Sept. 1998 | March 1999 | Sept. 1999 |
|------------------|-------------------------------|------------|------------|------------|------------|------------|------------|
| Hub Model Number | S/N Series | | | | | | |
| HC-B3TN-3 | BU | 1-377 | 378-754 | 755-1881 | 1882-3008 | 3009-3840 | 3841-4673 |
| HC-B3MN-3 | GB | | | | | | |
| HC-B3MN-5 | FZ | | | | | | |
| HC-B3TN-5 | BV | 1-86 | 87-172 | 173-529 | 530-885 | 886-1622 | 1623-2359 |
| HC-B3TN-4 | FK | | | | | | |
| HC-B3TN-2 | AG | 1-59 | 60-118 | 119-174 | 175-231 | 232-238 | |
| HC-B3TF-7 | EX | | | | | 1-3 | 4-7 |
| HC-A3VF-7 | DS | | | | 1 | 2-20 | 21-39 |
| HC-B4TN-5 | CD | 1-94 | 95-187 | 188-663 | 664-1139 | 1140-1399 | 1400-1660 |
| HC-B4TN-3 | EA | 1-169 | 170-338 | 339-437 | 438-537 | 538-758 | 759-979 |
| HC-B4MN-5 | FL | | | 1-35 | 36-70 | 71-238 | 239-406 |
| HC-B4MP-3 | FW | | | | | 1-15 | 16-31 |
| HC-B4MP-4 | FU | | | | | 1-3 | 4-7 |
| HC-B5MP-5 | EZ | | 1 | | | | |
| HC-B5MA-3 | HB | | | | | | |
| HC-B5MN-3 | ES | | 1 | | | | |
| HC-B5MP-3 | EV | 1-51 | 52-101 | 102-223 | 224-345 | 346-478 | 479-612 |
| HC-B5MP-3 | FT | | | 1-3 | 4-6 | | |

| | Replacement is due by end of: | March 2000 | Sept. 2000 | March 2001 | Sept. 2001 | March 2002 | Sept. 2002 |
|------------------|-------------------------------|------------|------------|------------|------------|------------|-------------|
| Hub Model Number | S/N Series | | | | | | |
| HC-B3TN-3 | BU | 4674-5707 | 5708-6742 | 6743-7864 | 7865-8987 | 8988-10409 | 10410-11832 |
| HC-B3MN-3 | GB | | | | | | |
| HC-B3MN-5 | FZ | | | | | | |
| HC-B3TN-5 | BV | 2360-2689 | 2690-3020 | 3021-3410 | 3411-3600 | 3601-4035 | 4036-4270 |
| HC-B3TN-4 | FK | | | 1 | 2-3 | | |
| HC-B3TN-2 | AG | | | | 239-244 | 245-295 | 296-351 |
| HC-B3TF-7 | EX | 8-47 | 48-87 | 88-112 | 113-136 | 137-138 | 139-140 |
| HC-A3VF-7 | DS | 40-109 | 110-179 | 180-230 | 231-280 | 281-313 | 314-345 |
| HC-B4TN-5 | CD | 1661-1848 | 1849-2036 | 2037-2133 | 2134-2230 | 2231-3134 | 3135-3342 |
| HC-B4TN-3 | EA | 980-1003 | 1004-1028 | 1029-1036 | 1037-1043 | 1044-1092 | 1093-1142 |
| HC-B4MN-5 | FL | 407-411 | 412-416 | 417-423 | 424-429 | 430-436 | 437-1002 |
| HC-B4MP-3 | FW | 32-371 | 372-711 | 712-1024 | 1025-1338 | 1339-1393 | 1394-3033 |
| HC-B4MP-4 | FU | | 8 | | | | |
| HC-B5MP-5 | EZ | 2 | 3-4 | | | 5-6 | 7-8 |
| HC-B5MA-3 | HB | 1 | 2-3 | 4-28 | 29-52 | 53-78 | 79-1018 |
| HC-B5MN-3 | ES | 2-7 | 8-13 | | | | |
| HC-B5MP-3 | EV | 613-720 | 721-826 | 827-894 | 895-961 | 962-1002 | 1003-2030 |
| HC-B5MP-3 | FT | 7 | | | 8 | | |

Table 1 (continued)

| | Replacement is due by end of: | March 2003 | Sept. 2003 | March 2004 | Sept. 2004 | March 2005 | Sept. 2005 |
|---------------------|----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Hub Model Number | S/N Series | | | | | | |
| HC-B3TN-3 | BU | 11833- 13487 | 13488- 15141 | 15142- 16299 | 16300- 17457 | 17458- 18308 | 18309- 19160 |
| HC-B3MN-3 | GB | | | 1-162 | 163-324 | 325-361 | 362-438 |
| HC-B3MN-5 | FZ | | | 1-23 | 24-45 | 46 | |
| HC-B3TN-5 | BV | 4271-4523 | 4524-4776 | 4777-4809 | 4810-4843 | 4844-4945 | 4946-6022 |
| HC-B3TN-4 | FK | | | | | | 4 |
| HC-B3TN-2 | AG | 352-447 | 448-543 | 544-682 | 683-821 | 822-886 | 887-950 |
| HC-B3TF-7 | EX | 141-208 | 209-275 | 276-330 | 331-386 | 387-472 | 473-558 |
| HC-A3VF-7 | DS | 346-396 | 397-446 | 447-454 | 455-482 | 483-496 | 497-511 |
| HC-B4TN-5 | CD | | | | | | |
| HC-B4TN-3 | EA | | | | | | |
| HC-B4MN-5 | FL | | | | | | |
| HC-B4MP-3 | FW | | | | | | |
| HC-B4MP-4 | FU | | | | | | |
| HC-B5MP-5 | EZ | | | | | | |
| HC-B5MA-3 | HB | | | | | | |
| HC-B5MN-3 | ES | | | | | | |
| HC-B5MP-3 | EV | | | | | | |
| HC-B5MP-3 | FT | | | | | | |