0.2% of V, from 0 to 0.01% of B, and from 0.005 to 0.1% of N, all in terms of percentage by mass, with the balance of Fe and unavoidable impurities, and having an X value represented by the formula (1) below of 650 to 950:

X value = 35(Cr + 1.72Mo + 2.09Si + 4.86Nb + 8.29V + 1.77Ti + 21.4Al + 40.0B - 7.14C - 8.0N - 3.28Ni - 1.89Mn - 0.51Cu) + 310 ... (1)

chemical composition (B) comprising from 0.0001 to 0.15% of C, from 0.001 to 4.0% of Si, from 0.001 to 2.5% of Mn, from 0.001 to 0.045% of P, from 0.0005 to 0.03% of S, from 6.0 to 28.0% of Ni, from 15.0 to 26.0% of Cr, from 0 to 7.0% of Mo, from 0 to 3.5% of Cu, from 0 to 1.0% of Nb, from 0 to 1.0% of Ti, from 0 to 0.1% of Al, from 0 to 0.3% of N, from 0 to 0.01% of B, from 0 to 0.5% of V, from 0 to 0.3% of W, and from 0 to 0.1% of the total of Ca, Mg, Y, and REM (rare earth elements), all in terms of percentage by mass, with the balance of Fe and unavoidable impurities.

4. A method for producing a stainless steel diffusion-bonded product, comprising directly contacting stainless steel materials with each other to unify the materials together by diffusion bonding, wherein one of the stainless steel materials to be contacted is a dual-phase steel having the chemical composition (A) below and having an austenite + ferrite dual-phase temperature region in the range of 880°C or higher, and another one is a stainless steel having the chemical composition (C) below, and the diffusion bonding is advanced under conditions such that the contact surface pressure is in the range of from 0.03MPa to 1.0 MPa or less and the heating temperature is in the range of from 880 to 1,080°C while being accompanied by the movement of grain boundary caused when the ferrite phase in the dual-phase steel undergoes transformation to an austenite phase,

chemical composition (A) comprising from 0.0001 to 0.15% of C, from 0.001 to 1.0% of Si, from 0.001 to 1.0% of Mn, from 0.05 to 2.5% of Ni, from 13.0 to 18.5% of Cr, from 0 to 0.2% of Cu, from 0 to 0.5% of Mo, from 0 to 0.05% of Al, from 0 to 0.2% of Ti, from 0 to 0.2% of Nb, from 0 to 0.2% of V, from 0 to 0.01% of B, and from 0.005 to 0.1% of N, all in terms of percentage by mass, with the balance of Fe and unavoidable impurities, and having an X value represented by the formula (1) below of 650 to 950:

X value = 35(Cr + 1.72Mo + 2.09Si + 4.86Nb + 8.29V + 1.77Ti + 21.4Al + 40.0B - 7.14C - 8.0N - 3.28Ni - 1.89Mn - 0.51Cu) + 310 ... (1)

chemical composition (C) comprising from 0.0001 to 0.15% of C, from 0.001 to 1.2% of Si, from 0.001 to 1.2% of Mn, from 0.001 to 0.04% of P, from 0.0005 to 0.03% of S, from 0 to 0.6% of Ni, from 11.5 to 32.0% of Cr, from 0 to 2.5% of Mo, from 0 to 1.0% of Cu, from 0 to 1.0% of Nb, from 0 to 1.0% of Ti, from 0 to 0.2% of Al, from 0 to 0.025% of N, from 0 to 0.01% of B, from 0 to 0.5% of V, from 0 to 0.3% of W, and from 0 to 0.1% of the total of Ca, Mg, Y, and REM (rare earth elements), all in terms of percentage by mass, with the balance of Fe and unavoidable impurities.

5. The method for producing a stainless steel diffusion-bonded product according to any one of claims 2 to 4, wherein the dual-phase steel having the chemical composition (A) is a steel having a γmax represented by the formula (2) below of 20 to less than 100:

γmax = 420C - 11.5Si + 7Mn + 23Ni - 11.5Cr - 12Mo + 9Cu - 49Ti - 50Nb - 52Al + 470N + 189 ... (2).

6. The method for producing a stainless steel diffusion-bonded product according to any one of claims 2 to 4,

wherein the dual-phase steel having the chemical composition (A) is a steel having a γmax represented by the formula (2) below of 20 to less than 100, and the diffusion bonding is advanced under conditions such that the contact surface pressure is in the range of from 0.03 to 0.8 MPa and the heating temperature is in the range of from 880 to 1,030°C while being accompanied by the movement of grain boundary caused when the ferrite phase in the dual-phase steel undergoes transformation to an austenite phase:

γmax = 420C - 11.5Si + 7Mn + 23Ni - 11.5Cr - 12Mo + 9Cu - 49Ti – 50Nb - 52Al + 470N + 189 ... (2).