

CLASS 336, INDUCTOR DEVICES**SECTION I - CLASS DEFINITION**

This is the generic class for the structure of inductor devices of the passive type.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS**A. INDUCTOR DEVICES HAVING CAPACITANCE OR RESISTANCE:****1. With Capacitance:**

As pointed out above, this class provides for inductor devices wherein the inherent capacitive reactance of the inductor does not resonate with the inductance of the inductor within the frequency range of the electric current adapted to flow therethrough. Where the inductance of the inductor resonates with its inherent capacitive reactance, the device is excluded from this class and will be found in Class 333, Wave Transmission Lines and Networks, subclasses 24+, as a coupling network, (e.g., filter, delay networks, equalizers, coupling transformers), or in Class 334, Tuners, appropriate subclasses as a tuner.

2. With Resistance:

This class provides for all inductor devices having appreciable inductive reactance regardless of the value of the inherent resistance of the device within the frequency range of the electric current adapted to flow therethrough. This class does not provide for resistors which may have an incidental or undesired inherent inductive reactance and which are designed to be used only as resistive impedances. For such excluded resistors, see Class 338, Electrical Resistors, especially subclasses 61+ for resistors with inductance reducing means.

3. Inductor Devices in Combination with Separate Capacitors or Resistors:

This class does not provide for the combination of inductor devices and separate capacitors and/or resistors irrespective of whether such combined devices are in mere structural arrangement or in circuit arrangement with each other. For the excluded subject matter, see Class 361, Electricity: Electrical Systems and Devices, subclasses 268+, especially subclass 270 for the combination of a transformer and capacitor, subclasses 331+

for the structure of switchboards and analogous devices including the structural combination of plural diverse impedance elements, e.g., inductors and capacitors, inductors and resistors, capacitors and resistors or any combination of two or more of such elements for which provision has not been made elsewhere. See also the search notes below for other classes providing for inductor, inductor and capacitor or resistor combinations.

B. INDUCTOR DEVICE STRUCTURE CLASSIFIED ELSEWHERE:**1. Stationary Inductor Devices:**

Inductor device coil and core structure will be found in Class 361, Electricity: Electrical Systems and Devices, subclasses 268+ for induction or spark coils with capacitors and/or circuit makers and breakers of the periodically operated type, subclasses 331+.

2. Transmission Line Sections with Distributed Parameters:

Transmission line sections where the line has distributed inductance and capacity with or without effective distributed resistance are classified in Class 333, Wave Transmission Lines and Networks, subclasses 219+ and 245+. Note that in subclasses 245+ are resonant long line sections (i.e., with distributed inductance and capacity) which are designed to be operated at other than resonant frequency for producing the effect of an inductance. For example, a short-circuited quarter-wave length line operated at less than resonant frequency or an open-circuited line greater than a quarter-wave length but less than a half wave length of wave energy acts as an inductance. Also note that subclasses 24+ of Class 333 contains some patents relating to adjustable inductor devices which have an appreciable inherent capacity.

3. Electromagnets with Armatures:

Electromagnets of the tractive type which include an armature for converting electrical energy into mechanical work through the agency of electromagnetic induction are classified in Class 335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclasses 220+ for electromagnets with armatures. Note that also, Class 335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclasses 2+ provides for electromagnetically actuated electric switches.

4. Loading Coils:

Class 178, Telegraphy, subclass 46, provides for inductor coil structure designed for use in long electric wave transmission lines to modify the electric wave propagation characteristics of the lines.

5. Telephone Inductor Coils:

Class 379, Telephonic Communications, subclasses 443+ and the subclasses specified in the notes thereto provide for inductor coils combined with the structure of telephone instruments.

6. Loop Antennas:

Class 343, Communications: Radio Wave Antennas, subclasses 700+, and especially subclasses 726, 728, 741+, 748, 764, 788, 842, 855, and 866+, provides for the structure of inductor coil devices for radiating or intercepting radio wave energy in free space.

7. Dynamo Electric Machines:

Class 310, Electrical Generator or Motor Structure, appropriate subclasses for the structure of electric motors and generators including synchronous condensers, synchronous motors, induction motors, dynamotors, rotary converters, metadynes, balancer sets and the like.

8. Electromagnetic Electro-acoustical Wave Transducers and Sound Pick-ups:

Devices which include an electromagnetic device for converting electrical energy to sound energy, or vice versa, or which are used in electrically recording and/or reproducing sound records or which are used to convert the vibrations of a musical instrument into modified electric currents, are classified as follows:

Music instrument transducers, Class 84, Music, subclasses 725 to 729.

Audible electrical signal producers such as bells, whistles, etc., Class 340, Communications: Electrical, subclasses 384+.

Magnetic recording or reproducing devices, Class 360, Dynamic Magnetic Information Storage or Retrieval, subclasses 110+.

Electro-mechanical sound recording and/or reproducing devices having a stylus for actuating, or actuated by, the electromagnetic device, Class 369, Dynamic Information Storage or Retrieval, subclasses 146+.

Telephone transmitters or receivers, Class 379, Telephonic Communications, subclasses 419-427.

9. Signal Transmitters Using Variable Inductor Devices:

For devices designed to be selectively actuated to transmit an undulating current for signaling purpose and which include means, such as a pendulum, reed, or similar vibrating member to vary the inductance of a variable inductor device, see References to Other Classes, below.

10. Goniometers:

For Goniometers see Class 343 in References to Other Class, below.

11. Inductor Devices with Rotatable Element Recited By Name Only in Combination with Positioning Means:

Class 74, subclasses 10+ and the subclasses specified in the notes thereto provides for the combination of a transformer or inductive reactor having an element (e.g., coil or core) designed to be angularly movable in combination with specific mechanical means for rotating a shaft for positioning the movable element, where no significant structure of the transformer or reactor other than that it has an angularly movable part is recited in the claim. Where the means for moving the shaft is not solely mechanical see the search notes to subclass 10 of Class 74 for the other classes which provide for the combination. Where significant reactor or transformer structure is claimed, classification is in this class (336).

12. Inductor Devices or Systems Utilizing High Temperature Superconducting Material:

For Inductor Devices or Systems Utilizing High Temperature Superconducting Material, see Class 505 in References to Other Classes, below.

C. PATTERN CONTROLLED VARIABLE INDUCTOR DEVICES AND PATTERN TRACING DEVICES WHICH ACTUATE VARIABLE INDUCTOR DEVICES:

In many of the arts, especially in the machine tool arts, there are machines and apparatus designed to be controlled in accordance with a pattern. The control pattern may be facsimile of the article to be made or may be a code-type pattern or other type of record. Many of these apparatuses and machines disclose that the pattern actuates a variable inductor device to modify the electric

