U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

CLASSIFICATION ORDER 1849

August 2, 2005

Project No. MT010

The following classification changes will be effected by this order:

<table>
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<th>Class</th>
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<td>CROSS-REFERENCE ART COLLECTION(S): 902-927, 930, 940-948, 951, 952, 960</td>
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No other classes are impacted by this order.

This order includes the following:

A. CLASSIFICATION MANUAL CHANGES

C. CHANGES TO THE U.S. – I.P.C. CONCORDANCE

D. DEFINITION CHANGES
CLASS 903  HYBRID ELECTRIC VEHICLES (HEVS)

902  CROSS-REFERENCE ART COLLECTIONS

903  PRIME MOVERS COMPRISING ELECTRICAL AND

904  INTERNAL COMBUSTION MOTORS (EPO/JPO)

905  Having energy storing means (e.g.,

906  battery, capacitor) (EPO/JPO)

907  Component specially adapted for HEV

908  (EPO/JPO)

909  Combustion engine (EPO/JPO)

910  Motor or generator (EPO/JPO)

911  Electricity storage (e.g., battery,

912  capacitor) (EPO/JPO)

913  Fuel cell (EPO/JPO)

914  Gearing (EPO/JPO)

915  Orbital (e.g., planetary-gears)

916  (EPO/JPO)

917  With two or more gear sets

918  (EPO/JPO)

919  Drive line clutch (EPO/JPO)

920  One way (EPO/JPO)

921  Actuated (e.g., engaged or
disengaged by electrical,
hydraulic or mechanical means)

922  (EPO/JPO)

923  Specific drive or transmission
adapted for HEV (EPO/JPO)

924  With plurality of drive axles
(EPO/JPO)

925  With transmission for changing gear
ratio (EPO/JPO)

926  Continuously variable (EPO/JPO)

927  Stepped shift (EPO/JPO)

928  Specific vehicle topology (EPO/JPO)

929  Series and parallel (EPO/JPO)

930  Switching type (e.g., selectively
switchable) (EPO/JPO)

931  Differential gearing distributing
type (EPO/JPO)

932  Electrical distributing type (e.g.,
using motor having rotating rotor
and stator) (EPO/JPO)

933  Series (EPO/JPO)

934  Parallel (EPO/JPO)

935  Motor assist (EPO/JPO)

936  Conjoint control of different elements
(EPO/JPO)

937  Characterized by control of specific
element adapted for HEV (EPO/JPO)

938  Control of combustion engine
(EPO/JPO)

939  Control of motor or generator
(EPO/JPO)

940  Control of electrical storage means
(e.g., battery) (EPO/JPO)

941  Control of fuel cell (EPO/JPO)

942  Control of gearing (e.g., control of
transmission ratio) (EPO/JPO)

943  Control of driveline clutch (EPO/JPO)

944  Control of braking (e.g., blending of
regeneration, friction braking)
(EPO/JPO)

945  Control of equipment outside vehicle
drive train (e.g., fuel pump, air
conditioner, oil pump) (EPO/JPO)
C. CHANGES TO THE U.S. - I.P.C. CONCORDANCE

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CLASS 903 – HYBRID ELECTRIC VEHICLES (HEVs)

Class Definition:

This class includes arrangement or mounting of plural prime movers for mutual or common propulsion of a vehicle; this class includes specific HEV topologies, components and arrangements of components specially adapted for HEVs, as well as controls of components specially adapted for HEVs.

This class was initially established as a result of a joint reclassification project of HEV technology completed by the Japanese Patent Office (JPO) and the European Patent Office (EPO). At the time of introduction, all US documents in these subclasses were either classified directly by the EPO or JPO, or through family member processing of classified documents. The subclasses also contain foreign documents classified directly by these countries. The US patents are updated with classifications assigned by US examiners. Foreign patents are updated on a regular basis from the EPO and JPO databases.

Cross-Reference Art Collection(s)

902  PRIME MOVERS COMPRISING ELECTRICAL AND INTERNAL COMBUSTION MOTORS (EPO/JPO):
Subject matter under cross-reference art collection definition wherein one prime mover comprises a motor that converts electrical energy to mechanical work and a second prime mover that comprises a chamber wherein combustible material is burned and the heat energy thus developed is converted into work.

903  Having energy storing means (e.g., battery, capacitor) (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04 and FI classification B60K 6/04.

904  Component specially adapted for HEV (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B and FI classification B60K 6/04,100.

905  Combustion engine (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B2 and FI classification B60K 6/04,110.

906  Motor or generator (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B4 and FI classification B60K 6/04, 120.

907  Electricity storage (e.g., battery, capacitor) (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B6 and FI classification B60K 6/04,130.

908  Fuel cell (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B8 and FI classification B60K 6/04, 140.

909  Gearing (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B10 and FI classification B60K 6/04,150.
910 **Orbital (e.g., planetary gears) (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B10B and FI classification B60K 6/04, 151.

911 **With two or more gear sets (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B10B and FI classification B60K 6/04, 151.

912 **Drive line clutch (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B12 and FI classification B60K 6/04, 160.

913 **One way (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B12B and FI classification B60K 6/04, 161.

914 **Actuated (e.g., engaged or disengaged by electrical, hydraulic or mechanical means) (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B12D and FI classification B60K 6/04, 163.

915 **Specific drive or transmission adapted for HEV (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04T and FI classification B60K 6/04, 700.

916 **With plurality of drive axles (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04T2 and FI classification B60K 6/04, 710.

917 **With transmission for changing gear ratio (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04T4 and FI classification B60K 6/04, 730.

918 **Continuously variable (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04T4C and FI classification B60K 6/04, 731.

919 **Stepped shift (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04T4S and FI classification B60K 6/04, 733.

920 **Specific vehicle topology (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04H and FI classification B60K 6/04, 500.

921 **Series and parallel (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04H6 and FI classification B60K 6/04, 550.

922 **Switching type (e.g., selectively switchable) (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04H6C and FI classification B60K 6/04, 551.
923 **Differential gearing distributing type (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04H6D and FI classification B60K 6/04, 553.

924 **Electrical distributing type (e.g., using motor having rotating rotor and stator) (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04H6E and FI classification B60K 6/04, 555.

925 **Series (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04H2 and FI classification B60K 6/04, 510.

926 **Parallel (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04H4 and FI classification B60K 6/04, 530.

927 **Motor assist (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04H4B and FI classification B60K 6/04, 531.

930 **Conjoint control of different elements (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04F and FI classification B60K 6/04, 400.

940 **Characterized by control of specific element adapted for HEV (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D and FI classification B60K 6/04, 300.

941 **Control of combustion engine (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D2 and FI classification B60K 6/04, 310.

942 **Control of motor or generator (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D4 and FI classification B60K 6/04, 320.

943 **Control of electrical storage means (e.g., battery) (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D6 and FI classification B60K 6/04, 330.

944 **Control of fuel cell (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D8 and FI classification B60K 6/04, 340.

945 **Control of gearing (e.g., control of transmission ratio) (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D10 and FI classification B60K 6/04, 350.

946 **Control of driveline clutch (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D12 and FI classification B60K 6/04, 360.

947 **Control of braking (e.g., blending of regeneration, friction braking) (EPO/JPO):**
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D14 and FI classification B60K 6/04, 370.
Control of equipment outside vehicle drive train (e.g., fuel pump, air conditioner, oil pump) (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04D16 and FI classification B60K 6/04, 380.

Assembly or relative location of components (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B14 and FI classification B60K 6/04, 170.

Housing details (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/04B14B and FI classification B60K 6/04, 171.

Having chargeable mechanical accumulator (EPO/JPO):
Subject matter under cross-reference art collection 902 is substantially the same in scope as ECLA classification B60K6/06 and FI classification B60K 6/06.