

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 585

DATE: JANUARY 1, 2019

PROJECT RP0537

The following classification changes will be effected by this Notice of Changes:

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Symbols New:	F15B	21/0423, 21/0427
Titles Changed:	F15B	SUBCLASS
	F15B	1/02, 1/027, 1/04, 1/12, 1/265
	F15B	5/00
	F15B	7/00, 7/001, 7/005, 7/04, 7/10
	F15B	9/00, 9/16
	F15B	11/003, 11/024, 11/032, 11/036, 11/0423, 11/05, 11/055, 11/12, 11/15, 11/16, 11/162, 11/20, 11/205
	F15B	13/01, 13/02, 13/021, 13/022, 13/0416, 13/0422, 13/043, 13/044, 13/16
	F15B	15/00, 15/08, 15/082, 15/084, 15/10, 15/1404, 15/1409, 15/1466, 15/18, 15/26
	F15B	20/00, 20/008
	F15B	21/00, 21/006, 21/02, 21/04, 21/041, 21/042, 21/044, 21/045, 21/047, 21/048, 21/10, 21/12, 21/14
Warnings Deleted:	F15B	SUBCLASS
Warnings New:	F15B	21/042, 21/0423, 21/0427
DEFINITIONS:		
Definitions New:	F15B	1/265, 15/1466
Definitions Modified:	F15B	SUBCLASS
	F15B	1/04, 5/00, 7/10, 9/16, 11/022, 11/024, 11/05, 13/01, 15/00, 15/10, 21/02

No other subclasses/groups are impacted by this Notice of Changes.

This Notice of Changes includes the following [Check the ones included]:

1. CLASSIFICATION SCHEME CHANGES

- A. New, Modified or Deleted Group(s)
- B. New, Modified or Deleted Warning(s)

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- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
 - B. Modified or Deleted Definitions (Definitions Quick Fix)
3. REVISION CONCORDANCE LIST (RCL)
4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5. CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS F15B SYSTEMS ACTING BY MEANS OF FLUIDS IN GENERAL; FLUID-PRESSURE ACTUATORS, e.g. SERVO-MOTORS; DETAILS OF FLUID-PRESSURE SYSTEMS, NOT OTHERWISE PROVIDED FOR (hydraulically or pneumatically operated lifting devices for soil-working machines A01B63/10; hydraulic drawing presses B21D; hydraulic or pneumatic manipulators B25J; hydraulic or pneumatic tipping devices for vehicles B60P1/00; hydraulic or pneumatic remote control for railway signals B61L7/04; hydraulic or pneumatic mine supports E21D15/44; motors, turbines, compressors, blowers, pumps F01 - F04; fluid signal amplifiers, relays F15C ; fluid dynamics F15D; fluid clutches or brakes F16D; fluid springs F16F; fluid gearing F16H; pistons, cylinders packing F16J; valves, taps, cocks, actuating-floats F16K; safety valves with auxiliary fluid operation of the main valve F16K17/10; fluid-operating means for valves F16K31/12; pipes, pipe joints F16L; lubricating F16N)

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	F15B	subclass	SYSTEMS ACTING BY MEANS OF FLUIDS IN GENERAL; FLUID-PRESSURE ACTUATORS, e.g. SERVOMOTORS; DETAILS OF FLUID-PRESSURE SYSTEMS, NOT OTHERWISE PROVIDED FOR	
M	F15B 1/02	1	Installations or systems with accumulators	
M	F15B 1/027	2	having accumulator charging devices	
M	F15B 1/04	2	Accumulators	
M	F15B 1/12	5	attached at their periphery (flexible separating means in the form of a tube F15B 1/16)	
M	F15B1/265	2	{with pressurised main reservoir}	
M	F15B 5/00	0	Transducers converting variations of physical quantities, e.g. expressed by variations in positions of members, into fluid-pressure variations or vice versa; Varying fluid pressure as a function of variations of a plurality of fluid pressures or variations of other quantities (F15B 9/00 takes precedence)	
M	F15B 7/00	0	Systems in which the movement produced is definitely related to the output of a volumetric pump; Telemotors	
M	F15B 7/001	1	{With multiple inputs, e.g. for dual control}	
M	F15B 7/005	1	{With rotary or crank input}	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	F15B 7/04	1	In which the ratio between pump stroke and motor stroke varies with the resistance against the motor	
M	F15B 7/10	2	Compensation of the liquid content in a system (F15B 7/08 takes precedence)	
M	F15B 9/00	0	Servomotors with follow-up action, {e.g. obtained by feed-back control,} i.e. in which the position of the actuated member conforms with that of the controlling member	
M	F15B 9/16	1	Systems essentially having two or more interacting servomotors {, e.g. multi-stage (F15B18/00, F15B20/00 take precedence)}	
M	F15B 11/003	1	{Systems with load-holding valves}	
M	F15B 11/024	2	by means of differential connection of the servomotor lines, e.g. regenerative circuits	
M	F15B 11/032	3	by means of fluid-pressure converters	
M	F15B 11/036	3	by means of servomotors having a plurality of working chambers	
M	F15B 11/0423	4	{by controlling pump output or bypass, other than to maintain constant speed}	
M	F15B 11/05	3	specially adapted to maintain constant speed, e.g. pressure-compensated, load-responsive {(F15B11/161 takes precedence)}	
M	F15B 11/055	4	{by adjusting the pump output or bypass}	
M	F15B 11/12	2	providing distinct intermediate positions; with step-by-step action	
M	F15B 11/15	2	with special provision for automatic return	
M	F15B 11/16	1	With two or more servomotors	
M	F15B 11/162	3	{for giving priority to particular servomotors or users}	
M	F15B 11/20	2	controlling several interacting or sequentially-operating members	
M	F15B 11/205	3	{the position of the actuator controlling the fluid flow to the subsequent actuator}	
M	F15B 13/01	1	Locking-valves or other detent {i.e. load-holding} devices	
M	F15B 13/02	1	Fluid distribution or supply devices characterised by their adaptation to the control of servomotors	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	F15B 13/021	2	{Valves for interconnecting the fluid chambers of an actuator}	
M	F15B 13/022	2	{Flow-dividers; Priority valves}	
M	F15B 13/0416	3	{with means or adapted for load sensing}	
M	F15B 13/0422	4	{with manually-operated pilot valves, e.g. joysticks}	
M	F15B 13/043	4	with electrically-controlled pilot valves	
M	F15B 13/044	3	operated by electrically-controlled means, e.g. solenoids, torque-motors	
M	F15B 13/16	1	Special measures for feedback {, e.g. by a follow-up device}	
M	F15B 15/00	0	Fluid-actuated devices for displacing a member from one position to another; Gearing associated therewith	
M	F15B 15/08	1	Characterised by the construction of the motor unit	
M	F15B 15/082	2	{the motor being of the slotted cylinder type}	
M	F15B 15/084	2	{the motor being of the rodless piston type, e.g. with cable, belt or chain}	
M	F15B 15/10	2	the motor being of diaphragm type	
M	F15B 15/1404	3	{in clusters, e.g. multiple cylinders in one block}	
M	F15B 15/1409	3	{with two or more independently movable working pistons}	
M	F15B 15/1466	4	{Hollow piston sliding over a stationary rod inside the cylinder}	
M	F15B 15/18	1	Combined units comprising both motor and pump	
M	F15B 15/26	2	Locking mechanisms	
M	F15B 20/00	0	Safety arrangements for fluid actuator systems; Applications of safety devices in fluid actuator systems; Emergency measures for fluid actuator systems	
M	F15B 20/008	1	{Valve failure}	
M	F15B 21/00	0	Common features of fluid actuator systems; Fluid-pressure actuator systems or details thereof, not covered by any other group of this subclass	
M	F15B 21/006	1	{Compensation or avoidance of ambient pressure variation}	
M	F15B 21/02	1	Servomotor systems with programme control derived from a store or timing device; Control devices therefor	
M	F15B 21/04	1	Special measures taken in connection with the properties of the fluid	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	F15B 21/041	2	{Removal or measurement of solid or liquid contamination, e.g. filtering}	
C	F15B 21/042	2	{Controlling the temperature of the fluid}	F15B 21/042, F15B 21/0423, F15B 21/0427
N	F15B 21/0423	3	{Cooling}	
N	F15B 21/0427	3	{Heating}	
M	F15B 21/044	2	{Removal or measurement of undissolved gas, e.g. de-aeration, venting or bleeding}	
M	F15B 21/045	2	{Compensating for variations in viscosity or temperature}	
M	F15B 21/047	2	{Preventing foaming, churning or cavitation}	
M	F15B 21/048	2	{Arrangements for compressed air preparation, e.g. comprising air driers, air condensers, filters, lubricators or pressure regulators}	
M	F15B 21/10	1	Delay devices or arrangements	
M	F15B 21/12	1	Fluid oscillators or pulse generators	
M	F15B 21/14	1	Energy-recuperation means	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; E= existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types .
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.

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- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

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B. New, Modified or Deleted Warning(s)

SUBCLASS F15B SYSTEMS ACTING BY MEANS OF FLUIDS IN GENERAL; FLUID-PRESSURE ACTUATORS, e.g. SERVO-MOTORS; DETAILS OF FLUID-PRESSURE SYSTEMS, NOT OTHERWISE PROVIDED FOR (hydraulically or pneumatically operated lifting devices for soil-working machines A01B63/10; hydraulic drawing presses B21D; hydraulic or pneumatic manipulators B25J; hydraulic or pneumatic tipping devices for vehicles B60P1/00; hydraulic or pneumatic remote control for railway signals B61L7/04; hydraulic or pneumatic mine supports E21D15/44; motors, turbines, compressors, blowers, pumps F01 - F04; fluid signal amplifiers, relays F15C ; fluid dynamics F15D; fluid clutches or brakes F16D; fluid springs F16F; fluid gearing F16H; pistons, cylinders packing F16J; valves, taps, cocks, actuating-floats F16K; safety valves with auxiliary fluid operation of the main valve F16K17/10; fluid-operating means for valves F16K31/12; pipes, pipe joints F16L; lubricating F16N)

<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
D	F15B	In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme	
N	F15B 21/042		Group F15B 21/042 is impacted by reclassification into groups F15B 21/0423 and F15B 21/0427. Groups F15B 21/042, F15B 21/0423, and F15B 21/0427 should be considered in order to perform a complete search.
N	F15B 21/0423		Group F15B 21/0423 is incomplete pending reclassification of documents from group F15B 21/042. Groups F15B 21/042 and F15B 21/0423 should be considered in order to perform a complete search.
N	F15B 21/0427		Group F15B 21/0427 is incomplete pending reclassification of documents from group F15B 21/042. Groups F15B 21/042 and F15B 21/0427 should be considered in order to perform a complete search.

*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

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2. A. DEFINITIONS (new)

F15B1/265

References:

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Systems with accumulators	F15B 1/02
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2. A. DEFINITIONS (new)

F15B15/1466

References:

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Systems for controlling the actuator force	F15B11/036
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2. A. DEFINITIONS (modified)

F15B

References:

DELETE: Limiting references section

ADD: The following 5 new rows

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Desalination	B63J1/00
Water purification	C02F1/00

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Engine water cooling	F01P3/00
Fuel injection	F02M
Central heating systems	F24D3/00

2. A. DEFINITIONS (modified)

F15B1/04

References:

DELETE: Limiting references section

DELETE: Row “See also” from Informative references table

ADD: The following new row to Informative references

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Pressure vessels per se	F17C1/00
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Special rules of classification

MODIFY: The Special rules of classification as shown below

The sub-group [F15B1/04](#) is complemented by the main group [F15B2201/00](#).

2. A. DEFINITIONS (modified)

F15B5/00

References:

DELETE: Limiting references section

Informative references:

ADD: The following new row to Informative references

Attention is drawn to the following places, which may be of interest for search:

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Pressure sensors	G01L9/00
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DELETE: Special rules of classification

2. A. DEFINITIONS (modified)

F15B7/10

References:

ADD: Limiting references section as shown below

Limiting references:

This place does not cover:

Details of input units or master units	F15B7/08
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DELETE: Special rules of classification

2. A. DEFINITIONS (modified)

F15B9/16

References:

ADD: Limiting references section as shown below

Limiting references:

This place does not cover:

Parallel arrangements of independent servomotor systems	F15B18/00
Safety arrangements therefor	F15B20/00

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2. A. DEFINITIONS (modified)

F15B11/022

References:

ADD: Limiting references section as shown below

Limiting references:

This place does not cover:

fluid-pressure converters increasing the working force after an approach stroke	F15B11/0325
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Informative references:

MODIFY: Informative references table as shown below

Attention is drawn to the following places, which may be of interest for search:

Combined control for output members	F15B2211/775
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2. A. DEFINITIONS (modified)

F15B11/024

References:

DELETE: Limiting references section

ADD: New row to Informative references as shown below

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Regeneration valves per se	F15B13/021
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2. A. DEFINITIONS (modified)

F15B11/05

References:

ADD: Limiting references section as shown below

Limiting references:

This place does not cover:

maintaining constant speed with sensing of servomotor demand and load, for two or more servomotors	F15B11/161
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Informative references:

ADD: New 1 new row to Informative references section

Attention is drawn to the following places, which may be of interest for search:

Counterbalance valves	F15B11/0445
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2. A. DEFINITIONS (modified)

F15B13/01

References:

ADD: The following new row to the Informative references section

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Locking mechanisms associated with the actuator	F15B15/26
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Synonyms and Keywords

MODIFY: Synonyms and Keywords as shown below

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In patent documents, the following words/expressions are often used as synonyms:

- "over-centre valve", "locking-valve"

2. A. DEFINITIONS (modified)

F15B15/00

References:

DELETE: Limiting references section

ADD: Informative references section

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Motors with continuous rotary movement	F01 , F03
--	---

2. A. DEFINITIONS (modified)

F15B15/10

References:

DELETE: Limiting references section

DELETE: Table row in Informative references: "Corresponding FTerms"

MODIFY: Add and modify the following rows in Informative references

Informative references:

Attention is drawn to the following places, which may be of interest for search:

Connection of valves to inflatable elastic bodies	B60C29/00
Inflatable flexible elements for lifting goods	B66F3/35
Bellows pistons	F16J3/06

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2. A. DEFINITIONS (modified)

F15B21/02

References:

Informative references:

ADD: The following new row to Informative references

Attention is drawn to the following places, which may be of interest for search:

Programme control in washing machines	D06F33/04
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3. REVISION CONCORDANCE LIST (RCL)

<u>Type*</u>	<u>From CPC Symbol (existing)</u>	<u>To CPC Symbol(s)</u>
C	F15B 21/042	F15B 21/042, F15B 21/0423, F15B 21/0427

* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

NOTES:

- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the “To” column, do not use ranges of symbols.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“To”) symbol, however it is required to specify “<no transfer>” in the “To” column for such cases.
- RCL is not needed for finalisation projects.

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4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
F15B 21/041	F15B 21/041	update
F15B 21/042	F15B 21/042	update
F15B 21/0423	F15B 21/0423	new
F15B 21/0427	F15B 21/0427	new
F15B 21/044	F15B 21/044	update
F15B 21/045	F15B 21/045	update
F15B 21/047	F15B 21/047	update
F15B 21/048	F15B 21/048	update

*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “NEW.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “NEW”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “NEW”.

NOTES:

- F symbols are not included in the CICL table above.
- E and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.