Symbol	Typ	Titel
F	**Sektion**	**SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING**
F02	**Klasse**	**COMBUSTION ENGINES (cyclically operating valves therefor, lubricating, exhausting, or silencing engines F01); HOT-GAS OR COMBUSTION-PRODUCT ENGINE PLANTS**
F02N	**Unterklasse**	**STARTING OF COMBUSTION ENGINES (starting of free-piston combustion-engines F02B 71/02; starting of gas-turbine plants F02C 7/26); STARTING AIDS FOR SUCH ENGINES, NOT OTHERWISE PROVIDED FOR**
		Muscle-operated starting apparatus (with intermediate power storage F02N 5/00-F02N 15/00)
F02N 1/00	**Hauptgruppe**	**Starting apparatus having hand cranks**
F02N 1/02	1-Punkt Untergruppe	. having safety means preventing damage caused by reverse rotation
F02N 3/00	**Hauptgruppe**	**Other muscle-operated starting apparatus**
F02N 3/02	1-Punkt Untergruppe	. having pull-cords
F02N 3/04	1-Punkt Untergruppe	. having foot-actuated levers
		Power-operated starting apparatus; Muscle-operated starting apparatus with intermediate power storage
F02N 5/00	**Hauptgruppe**	**Starting apparatus having mechanical power storage**
F02N 5/02	1-Punkt Untergruppe	. of spring type
F02N 5/04	1-Punkt Untergruppe	. of inertia type
F02N 7/00	**Hauptgruppe**	**Starting apparatus having fluid-driven auxiliary engines or apparatus**
F02N 7/02	1-Punkt Untergruppe	. the apparatus being of single-stroke piston type, e.g. pistons acting on racks or pull-cords
F02N 7/04	2-Punkt Untergruppe	. . the pistons acting on screw-threaded members to effect rotation
F02N 7/06	1-Punkt Untergruppe	. the engines being of reciprocating-piston type (of internal-combustion type F02N 7/10)
F02N 7/08	1-Punkt Untergruppe	. the engines being of rotary type
F02N 7/10	1-Punkt Untergruppe	. characterised by using auxiliary engines or apparatus of combustion type (by using explosive cartridges F02N 13/00)
F02N 7/12	2-Punkt Untergruppe	. . the engines being of rotary type, e.g. turbines (F02N 7/14 takes precedence)
F02N 7/14	2-Punkt Untergruppe	. . the starting engines being readily removable from main engines, e.g. of portable type
F02N 9/00	**Hauptgruppe**	**Starting of engines by supplying auxiliary pressure fluid to their working chambers**
F02N 9/02	1-Punkt Untergruppe	. the pressure fluid being generated directly by combustion (by using explosive cartridges F02N 13/00)
F02N 9/04	1-Punkt Untergruppe	. the pressure fluid being generated otherwise, e.g. by compressing air
F02N 11/00	**Hauptgruppe**	**Starting of engines by means of electric motors (electric motors per seH02)**
F02N 11/02	1-Punkt Untergruppe	. the motors having longitudinally-shiftable rotors
F02N 11/04	1-Punkt Untergruppe	. the motors being associated with current generators
F02N 11/06	2-Punkt Untergruppe	. . and with ignition apparatus
F02N 11/08	1-Punkt Untergruppe	. Circuits specially adapted for starting of engines
F02N 11/10	1-Punkt Untergruppe	. Safety devices (F02N 11/08 takes precedence)

Symbol	Typ	Titel
F02N 11/12	1-Punkt Untergruppe	. Starting of engines by means of mobile, e.g. portable, starting sets
F02N 11/14	1-Punkt Untergruppe	. Starting of engines by means of electric starters with external current supply (F02N 11/12 takes precedence)
F02N 13/00	**Hauptgruppe**	**Starting of engines, or driving of starting apparatus by use of explosives, e.g. stored in cartridges**
F02N 13/02	1-Punkt Untergruppe	. Cartridges specially adapted therefor (gas cartridges in general F42B 3/04)
F02N 15/00	**Hauptgruppe**	**Other power-operated starting apparatus; Component parts, details, or accessories, not provided for in, or of interest apart from, groups F02N 5/00-F02N 13/00**
F02N 15/02	1-Punkt Untergruppe	. Gearing between starting-engines and started engines; Engagement or disengagement thereof
F02N 15/04	2-Punkt Untergruppe	. . the gearing including disengaging toothed gears
F02N 15/06	3-Punkt Untergruppe	. . . the toothed gears being moved by axial displacement
F02N 15/08	2-Punkt Untergruppe	. . the gearing being of friction type
F02N 15/10	1-Punkt Untergruppe	. Safety devices not otherwise provided for
F02N 17/00	**Hauptgruppe**	**Other starting means; Starting aids not otherwise provided for**
F02N 17/02	1-Punkt Untergruppe	. Aiding engine start by thermal means, e.g. using lighted wicks (using electrically-heated glowing plugs F02P 19/02)
F02N 17/04	2-Punkt Untergruppe	. . by heating of fluids used in engines (heating of lubricants F01M 5/02)
F02N 17/047	3-Punkt Untergruppe	. . . by heating of combustion-air by flame generating means, e.g. flame glow-plugs [4]
F02N 17/053	4-Punkt Untergruppe	. . . . Arrangement thereof [4]
F02N 17/06	3-Punkt Untergruppe	. . . by heating of engine coolants
F02N 17/08	1-Punkt Untergruppe	. Aiding engine start by other than thermal means