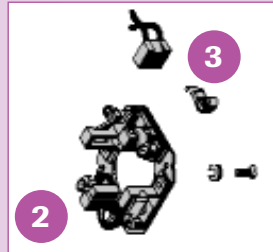
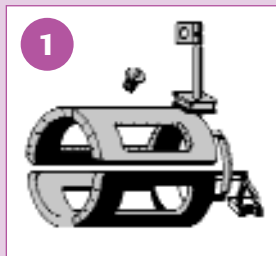




**HITACHI**  
**DELCO REMY**  
**BOSCH**  
**DUCELLIER**  
**LUCAS-CAV**  
**NIPPONDENSO**  
**FORD**  
**MITSUBISHI**  
**NIKKO**  
**PARIS-RHONE**

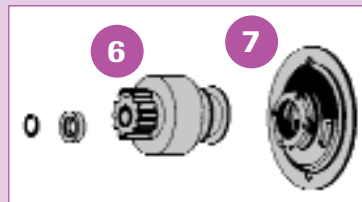
STARTERS & ALTERNATORS



1 Winding

2 Brush holder

3 Spring-loaded brush set



4 Bearing

5 Commutator-end bracket

6 Drive assembly

7 Central cover



8 Armature

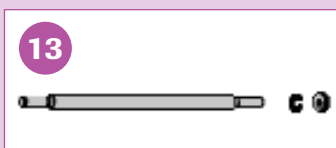
9 Bearing

10 Drive-end bracket

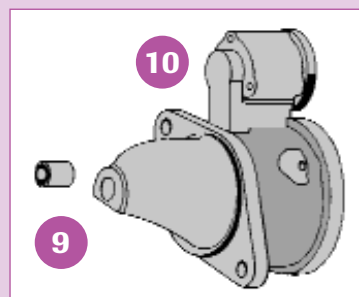


11 Starter switch

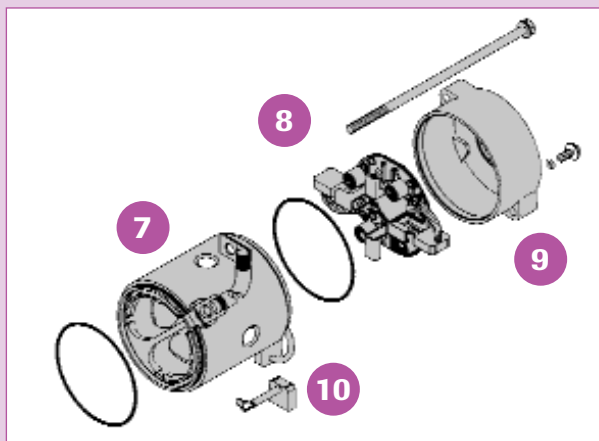
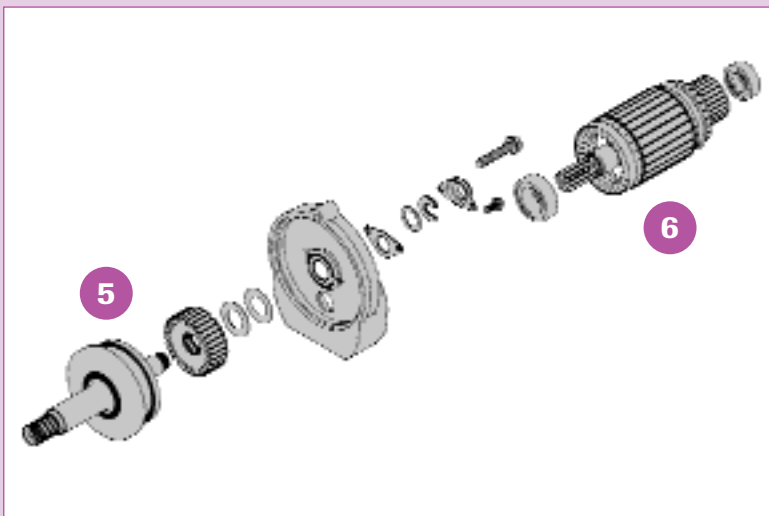
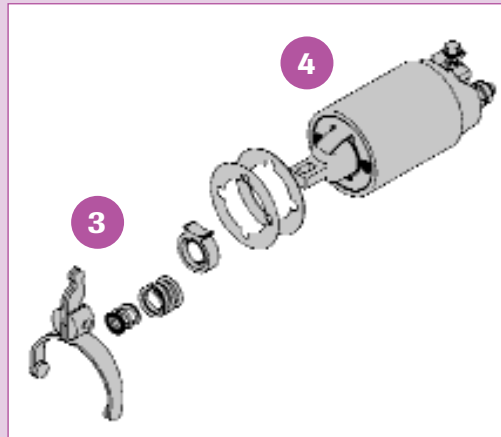
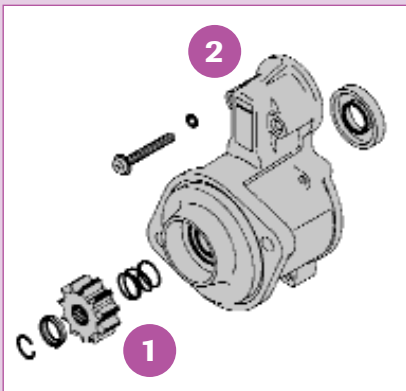
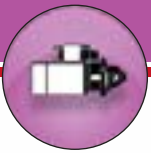
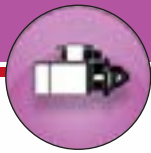
12 Engaging lever



13 Fixing parts set



FOR FURTHER INFORMATION, PLEASE CONTACT US.



- 1 Pinion set
- 2 Bracket assy, front
- 3 Lever assy
- 4 Contactor
- 5 Shaft assy, clutch set
- 6 Armature
- 7 Yoke assy
- 8 Brush holder
- 9 Flange, rear
- 10 Brush

**PARTS BUILD-UP STARTERS**

FOR FURTHER INFORMATION, PLEASE CONTACT US.

**EXAMPLE**



Company: .....

Customer code: .....

Name: .....

Fax number: .....

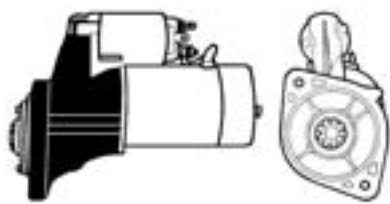
Truck make: .....

Truck type : ..... Serial nr.: .....

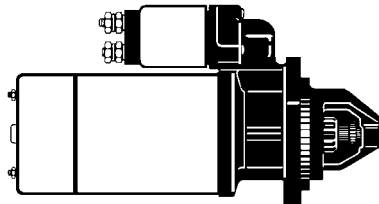
- ① TY-ST ..... type of starter, as per picture (type R or N)
- ② TY-KO..... type of starter drive cover, as per picture
- ③ U ..... voltage (volt)
- ④ P ..... power (Kw)
- ⑤ D1 ..... diameter of flange, as per picture (mm)
- ⑥ D2 ..... diameter of starter drive (mm)
- ⑦ AT-TA..... number of teeth
- ⑧ DZ ..... rotary direction of the dog gear
- ⑨ L1 ..... overall length of starter (mm)
- ⑩ L2 ..... dimension (see picture)
- ⑪ L3 ..... dimension (see picture)
- ⑫ L4 ..... dimension (see picture)
- ⑬ LG-BG ..... location of fixing holes (see diagram)
- ⑭ LG-CE..... position of the centre between holes (measure the distance between the mounting holes and fill out from small to large. e.g. 57-90-107)
- ⑮ D3..... diameter of fixing holes
- ⑯ TA ..... thread type of the mounting holes (if any thread)
- ⑰ OLIED..... oil sealed yes/no



## TYPE OF STARTER



Reductor = type R

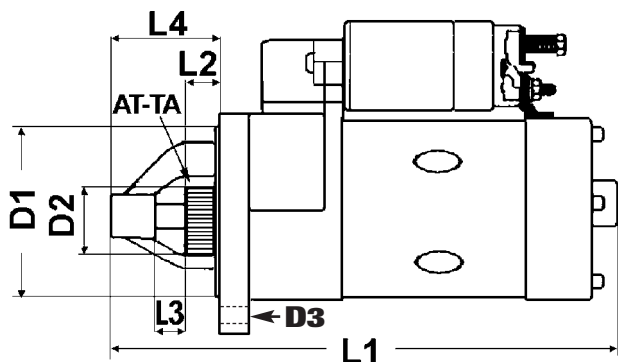


Starter = type N

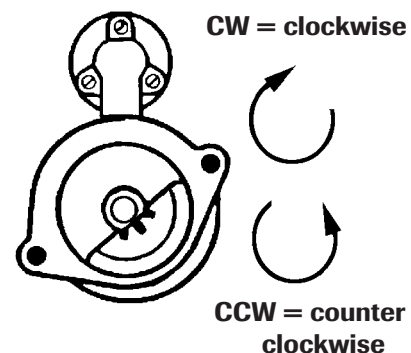
## TYPE OF STARTER DRIVE



## OTHER DIMENSIONS



## DIRECTION OF ROTATION



STARTER TECHNICAL DETAILS

## LOCATION OF FIXING HOLES

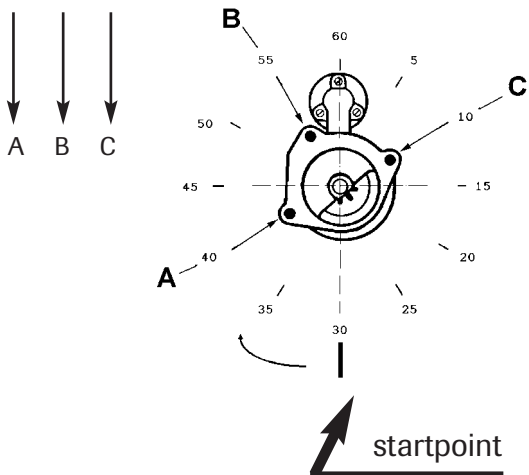
**A** e.g. with 3 fixing holes:

start at 30°

clockwise and per 5°

Put coil on top. If no coil, then motor on top before determining location of holes

= 40 - 55 - 10



## LOCATION OF FIXING HOLES

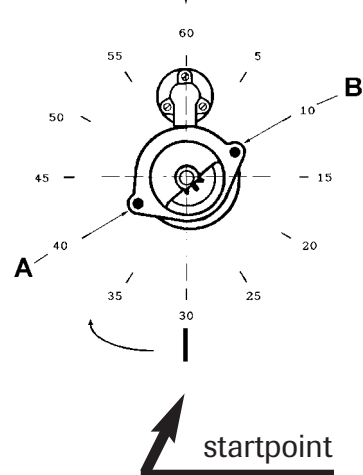
**B** e.g. with 2 fixing holes:

start at 30°

clockwise and per 5°

Put coil on top. If no coil, then motor on top before determining location of holes

= 40 - 10 - 00



## USED FOR ALLIS CHALMERS



### REF 105TA5007

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	29
AT-TA	9
L1	195
LG-BG	35-05-00
OLIED	NO

## USED FOR CLARK



### REF 105TA5071

TY-ST	R
TY-KO	S
U	12
D1	89,5
D2	40
AT-TA	10
L1	340
LG-BG	55-10-25
OLIED	NO

## USED FOR CLARK



### REF 105TA5076

TY-ST	R
TY-KO	Z
U	12
D1	89
D2	46
AT-TA	12
L1	342
LG-BG	55-10-25
OLIED	NO

## USED FOR HALLA-HYUNDAI



### REF 105TA5127

TY-ST	R
TY-KO	P
U	12
D1	95
D2	38
AT-TA	11
L1	292
LG-BG	40-10-00
OLIED	NO

**QUANTITY  
DISCOUNT  
AVAILABLE**

## USED FOR HYSTER



### REF 105TA5147

TY-ST	R
TY-KO	P
U	12
D1	95
D2	32
AT-TA	9
L1	235
LG-BG	35-05-00
OLIED	NO

## USED FOR HYSTER



### REF 103TA3198

TY-ST	R
TY-KO	P
U	12
D1	95
D2	32
AT-TA	9
L1	235
LG-BG	40-10-00
OLIED	NO

## USED FOR HYSTER



### REF 105TA5145

TY-ST	R
TY-KO	P
U	12
D1	100
D2	51
AT-TA	13
L1	240
LG-BG	50-05-20
OLIED	NO

## USED FOR HYSTER



### REF 103TA3154

TY-ST	R
TY-KO	S
U	12
D1	89,5
D2	40
AT-TA	10
L1	340
LG-BG	55-10-25
OLIED	NO

## USED FOR HYSTER



### REF 103TA3199

TY-ST	R
TY-KO	Y
U	12
D1	88,5
D2	40
AT-TA	10
L1	340
LG-BG	55-10-20
OLIED	NO





## USED FOR JUNGHEINRICH



### REF 105TA5160

TY-ST	R
TY-KO	P
U	12
D1	100
D2	51
AT-TA	13
L1	240
LG-BG	50-05-20
OLIED	NO

## USED FOR NISSAN



### REF 105TA5165

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	29
AT-TA	9
L1	195
LG-BG	35-05-00
OLIED	NO

## USED FOR KOMATSU



### REF 106TA5128

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	29
AT-TA	9
L1	195
LG-BG	35-05-00
OLIED	NO

## USED FOR KOMATSU



### REF 105TA5863

TY-ST	R
TY-KO	P
U	12
D1	95
D2	32
AT-TA	9
L1	235
LG-BG	40-10-00
OLIED	NO

## USED FOR KOMATSU



### REF 105TA5182

TY-ST	R
TY-KO	P
U	12
D1	95
D2	32
AT-TA	9
L1	235
LG-BG	35-05-00
OLIED	NO

## USED FOR KOMATSU



### REF 103TA3407

TY-ST	R
TY-KO	P
U	12
D1	95
D2	38
AT-TA	11
L1	292
LG-BG	40-10-00
OLIED	NO

## USED FOR KOMATSU



### REF 106TA5129

TY-ST	R
TY-KO	P
U	24
D1	82,5
D2	35
AT-TA	9
L1	225
LG-BG	35-05-00
OLIED	NO

## USED FOR KOMATSU



### REF 106TA5125

TY-ST	R
TY-KO	P
U	24
D1	95
D2	32,5
AT-TA	9
L1	230
LG-BG	40-10-00
OLIED	NO

## USED FOR KOMATSU



### REF 103TA3213

TY-ST	R
TY-KO	P
U	24
D1	105
D2	40
AT-TA	11
L1	295
LG-BG	40-10-00
OLIED	NO

## USED FOR LINDE



### REF 105TA5236

TY-ST	N
TY-KO	P
U	12
D1	76
D2	25
AT-TA	9
L1	265
LG-BG	55-15-20
OLIED	NO

## USED FOR MANITOU



### REF 105TA5247

TY-ST	N
TY-KO	Y
U	24
D1	90
D2	32
AT-TA	9
L1	315
LG-BG	55-25-00
OLIED	NO

## USED FOR MANITOU



### REF 105TA5246

TY-ST	R
TY-KO	P
U	12
D1	74
D2	29
AT-TA	9
L1	195
LG-BG	55-25-00
OLIED	NO

## USED FOR MANITOU



### REF 106TA5119

TY-ST	R
TY-KO	P
U	24
D1	90
D2	40
AT-TA	11
L1	295
LG-BG	45-10-00
OLIED	NO

## USED FOR MANITOU



### REF 106TA5115

TY-ST	R
TY-KO	P
U	24
D1	104
D2	40
AT-TA	11
L1	295
LG-BG	35-55-05
OLIED	NO

## USED FOR MANITOU



### REF 105TA5248

TY-ST	R
TY-KO	P
U	24
D1	105
D2	40
AT-TA	11
L1	295
LG-BG	50-20-00
OLIED	NO

## USED FOR MITSUBISHI



### REF 105TA5311

TY-ST	N
TY-KO	Y
U	12
D1	73,8
D2	31,5
AT-TA	10
L1	208
LG-BG	50-05-20
OLIED	NO

## USED FOR MITSUBISHI



### REF 103TA3252

TY-ST	R
TY-KO	P
U	12
D1	82
D2	38,5
AT-TA	10
L1	250
LG-BG	55-25-00
OLIED	NO

## USED FOR MITSUBISHI



### REF 105TA5298

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	29
AT-TA	9
L1	195
LG-BG	35-05-00
OLIED	NO



## USED FOR MITSUBISHI



### REF 105TA5259

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	41
AT-TA	11
L1	248
LG-BG	40-10-00
OLIED	NO

## USED FOR MITSUBISHI



### REF 105TA5299

TY-ST	R
TY-KO	P
U	12
D1	100
D2	51
AT-TA	13
L1	240
LG-BG	50-05-20
OLIED	NO

STARTERS

## USED FOR NISSAN



### REF 105TA5330

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	29
AT-TA	9
L1	195
LG-BG	35-05-00
OLIED	NO

## USED FOR NISSAN



### REF 105TA5325

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	29
AT-TA	9
L1	197
LG-BG	55-25-00
OLIED	NO

## USED FOR NISSAN



### REF 103TA3584

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	29
AT-TA	9
L1	198
LG-BG	55-25-00
OLIED	NO

## USED FOR NISSAN



### REF 105TA5328

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	35
AT-TA	9
L1	245
LG-BG	35-05-00
OLIED	NO

## USED FOR NISSAN



### REF 105TA5327

TY-ST	R
TY-KO	P
U	12
D1	100
D2	51
AT-TA	13
L1	240
LG-BG	50-05-20
OLIED	NO

## USED FOR NISSAN



### REF 105TA5323

TY-ST	R
TY-KO	P
U	24
D1	82,5
D2	35
AT-TA	9
L1	225
LG-BG	35-05-00
OLIED	NO

## USED FOR NISSAN



### REF 105TA5324

TY-ST	R
TY-KO	P
U	24
D1	105
D2	40
AT-TA	11
L1	295
LG-BG	40-10-00
OLIED	NO

## USED FOR SAMSUNG



### REF 105TA5339

TY-ST	R
TY-KO	S
U	12
D1	89,5
D2	40
AT-TA	10
L1	340
LG-BG	55-10-25
OLIED	NO

## USED FOR TCM



### REF 105TA5411

TY-ST	R
TY-KO	P
U	12
D1	74
D2	29
AT-TA	9
L1	195
LG-BG	55-25-00
OLIED	NO

## USED FOR TCM



### REF 105TA5409

TY-ST	R
TY-KO	P
U	12
D1	82
D2	38,5
AT-TA	10
L1	250
LG-BG	55-25-00
OLIED	NO

## USED FOR TCM



### REF 105TA5398

TY-ST	R
TY-KO	P
U	12
D1	82,5
D2	29
AT-TA	9
L1	195
LG-BG	35-05-00
OLIED	NO

## USED FOR TCM



### REF 105TA5376

TY-ST	R
TY-KO	P
U	12
D1	89
D2	39
AT-TA	13
L1	295
LG-BG	55-10-25
OLIED	NO

## USED FOR TCM



### REF 105TA5406

TY-ST	R
TY-KO	P
U	12
D1	95
D2	32
AT-TA	9
L1	235
LG-BG	35-05-00
OLIED	NO

## USED FOR TCM



### REF 105TA5877

TY-ST	R
TY-KO	P
U	12
D1	95
D2	32
AT-TA	9
L1	235
LG-BG	40-10-00
OLIED	NO

## USED FOR TCM



### REF 105TA5403

TY-ST	R
TY-KO	P
U	24
D1	82,5
D2	35
AT-TA	9
L1	225
LG-BG	35-05-00
OLIED	NO

## USED FOR TCM



### REF 105TA5388

TY-ST	R
TY-KO	P
U	24
D1	105
D2	40
AT-TA	11
L1	295
LG-BG	50-10-25
OLIED	NO

## USED FOR TOYOTA



### REF 105TA5420

TY-ST	R
TY-KO	P
U	12
D1	74
D2	29
AT-TA	9
L1	195
LG-BG	55-25-00
OLIED	NO

## USED FOR TOYOTA



### REF 105TA5427

TY-ST	R
TY-KO	P
U	12
D1	82.5
D2	40
AT-TA	11
L1	300
LG-BG	45-15-00
OLIED	NO

## USED FOR TOYOTA



### REF 103TA3461

TY-ST	R
TY-KO	P
U	12
D1	90
D2	40
AT-TA	11
L1	290
LG-BG	45-10-00
OLIED	NO

## USED FOR TOYOTA



### REF 103TA3556

TY-ST	R
TY-KO	P
U	12
D1	95
D2	32
AT-TA	9
L1	235
LG-BG	35-05-00
OLIED	NO

## USED FOR TOYOTA



### REF 105TA5423

TY-ST	R
TY-KO	P
U	24
D1	82.5
D2	40
AT-TA	11
L1	295
LG-BG	45-15-30
OLIED	NO

## USED FOR TOYOTA



### REF 105TA5415

TY-ST	R
TY-KO	P
U	24
D1	90
D2	40
AT-TA	11
L1	295
LG-BG	45-10-00
OLIED	NO

## USED FOR TOYOTA



### REF 105TA5426

TY-ST	R
TY-KO	P
U	24
D1	104
D2	40
AT-TA	11
L1	295
LG-BG	35-55-05
OLIED	NO

## USED FOR TOYOTA



### REF 105TA5431

TY-ST	R
TY-KO	P
U	24
D1	105
D2	40
AT-TA	11
L1	295
LG-BG	50-20-00
OLIED	NO

## USED FOR TOYOTA



### REF 105TA5424

TY-ST	R
TY-KO	P
U	24
D1	105
D2	40
AT-TA	11
L1	296
LG-BG	40-05-00
OLIED	NO

## USED FOR TOYOTA



### REF 103TA3465

TY-ST	R
TY-KO	P
U	24
D1	110
D2	40
AT-TA	11
L1	295
LG-BG	55-20-00
OLIED	NO

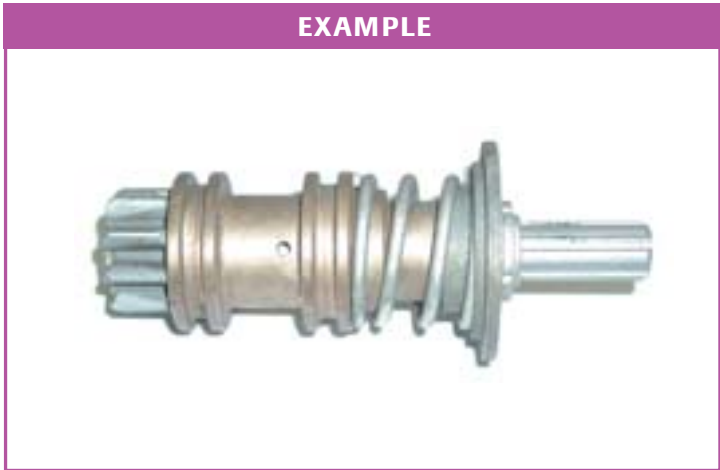
## USED FOR YALE



### REF 105TA5444

TY-ST	R
TY-KO	P
U	12
D1	100
D2	51
AT-TA	13
L1	240
LG-BG	50-05-20
OLIED	NO

EXAMPLE



Company: .....

Customer code: .....

Name: .....

Fax number: .....

Truck make: .....

Truck type : ..... Serial nr: .....

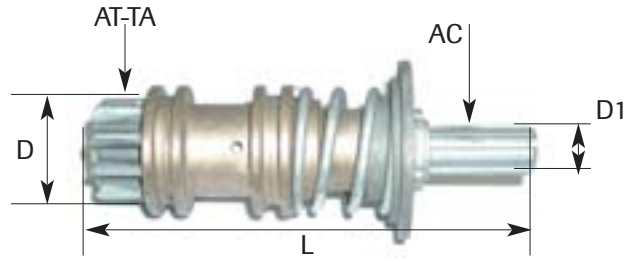
- 1 TYPE : ..... See following pages
- 2 D : ..... Diameter drive
- 3 AT-TA : ..... Number of teeth
- 4 L : ..... Total length
- 5 D1 : ..... Diameter, see picture
- 6 D2 : ..... Diameter, see picture
- 7 L1 : ..... Distance in between
- 8 AC : ..... Number of splines
- 9 AC1 : ..... Number of inner splines



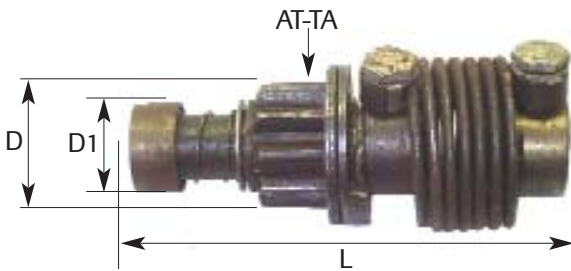
**TYPE A**



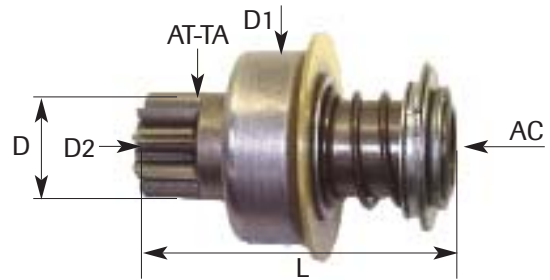
**TYPE B**



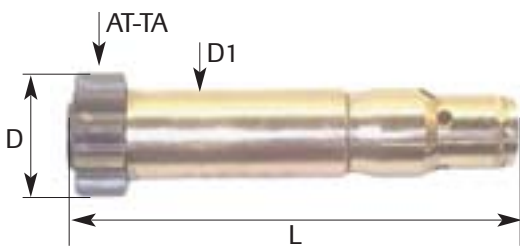
**TYPE C**



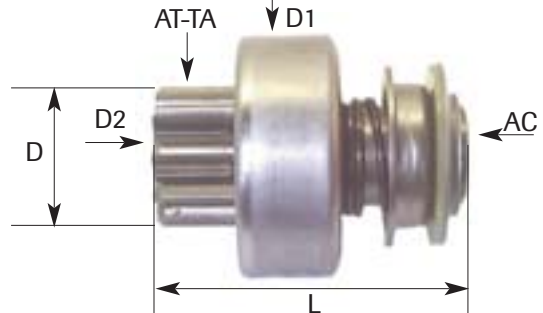
**TYPE D**



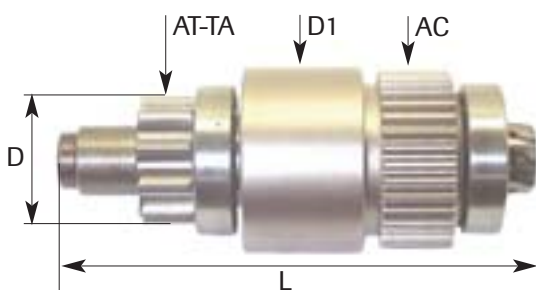
**TYPE E**



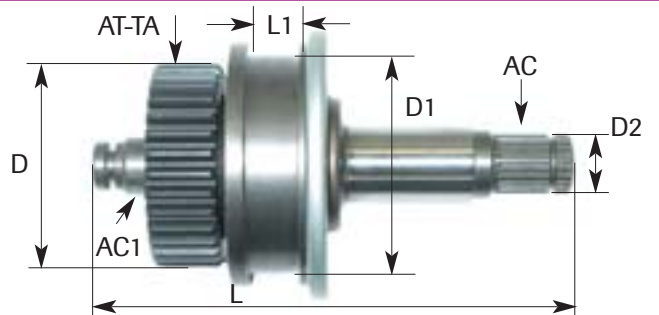
**TYPE F**



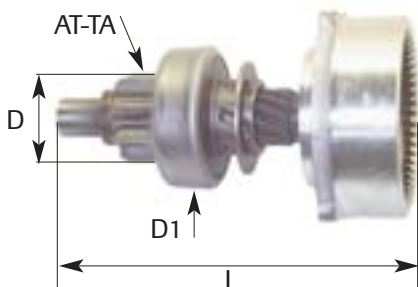
**TYPE G**



**TYPE H**



**TYPE I**





**FAX FORM: ARMATURES**

**EXAMPLE**



Company: .....

Customer code: .....

Name: .....

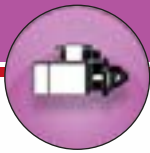
Fax number: .....

Truck make: .....

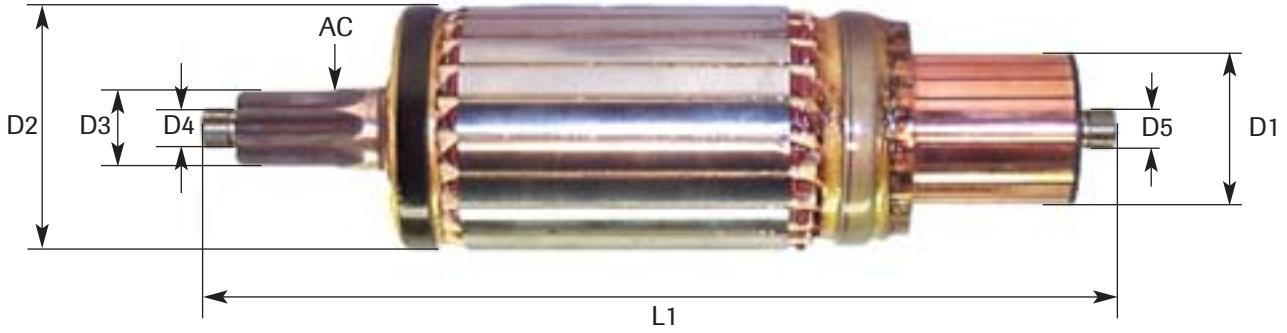
Truck type : ..... Serial nr.: .....

- ① **TYPE :** ..... **See following page**
- ② **L1 :** ..... **Total length**
- ③ **D1 :** ..... **Diameter, see picture**
- ④ **D2 :** ..... **Total diameter**
- ⑤ **D3 :** ..... **Diameter, see picture**
- ⑥ **D4 :** ..... **Shaft diameter**
- ⑦ **D5 :** ..... **Shaft diameter**
- ⑧ **L2 :** ..... **Length of gear**
- ⑨ **AT-TA :** ..... **Number of teeth**
- ⑩ **AC :** ..... **Number of splines**
- ⑪ **TA :** ..... **Type of thread**
- ⑫ **V :** ..... **Voltage**

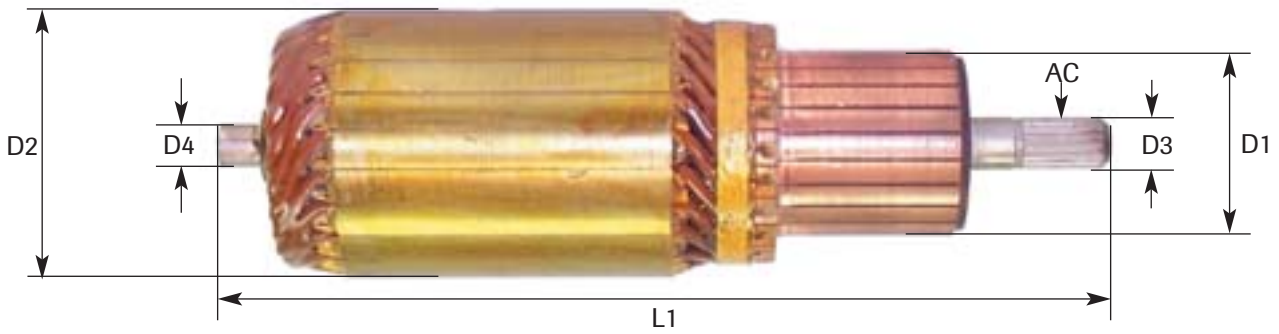




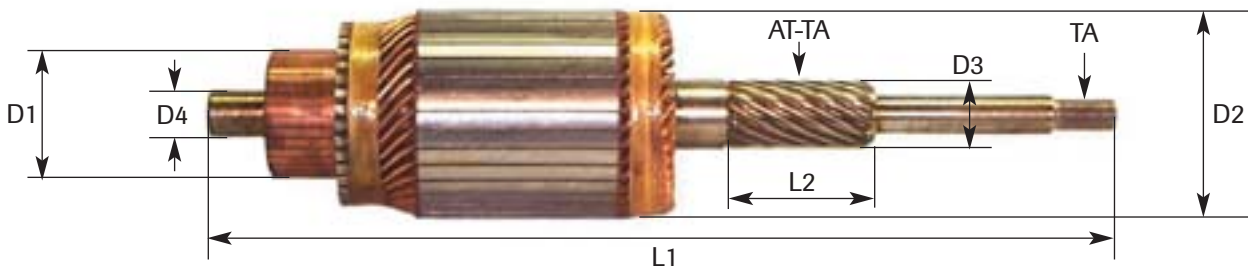
## TYPE A = SPLINES + ARMATURE + COMMUTATOR



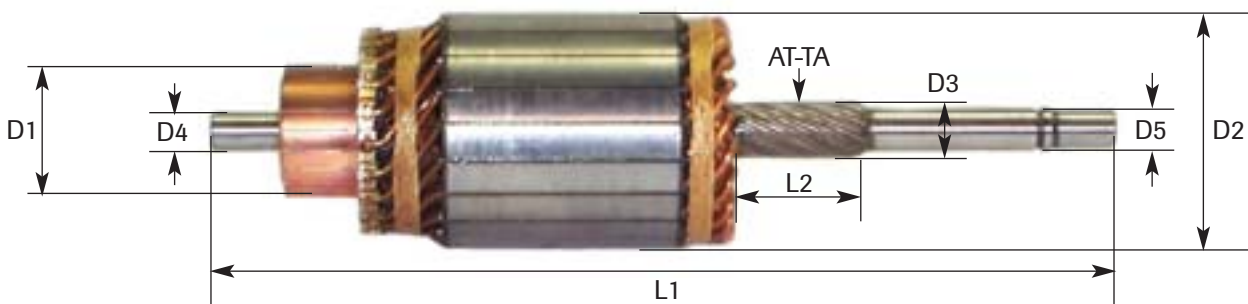
## TYPE B = ARMATURE + COMMUTATOR + SPLINES

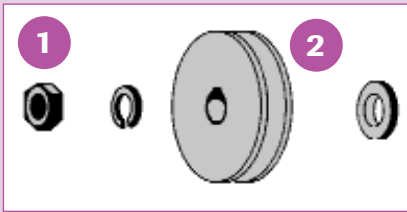
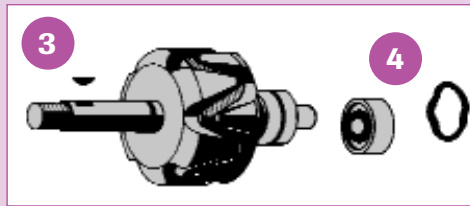


## TYPE C = ARMATURE WITH THREADED SHAFT



## TYPE D = ARMATURE WITHOUT THREADED SHAFT





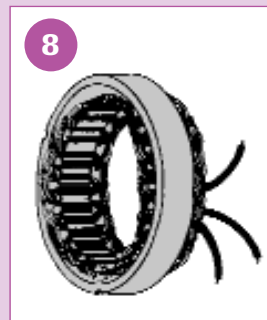
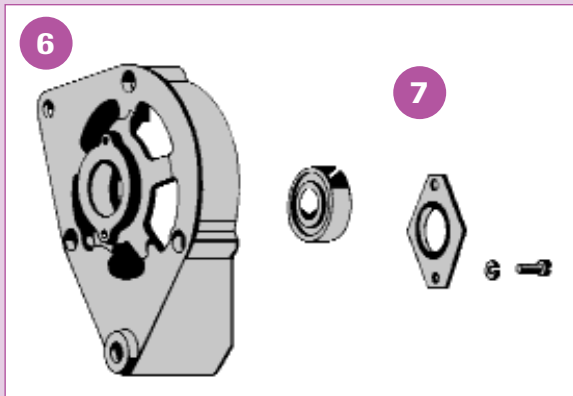
1 Fixing parts set

2 Pulley

3 Rotor

4 Ball bearing

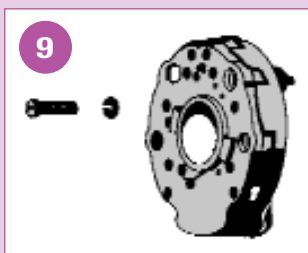
5 Fan



6 Drive-end bracket

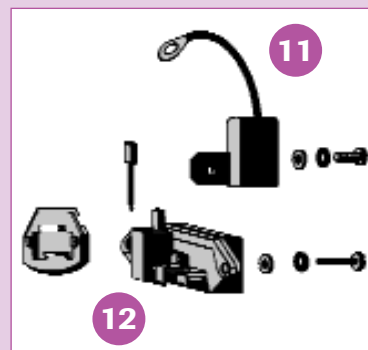
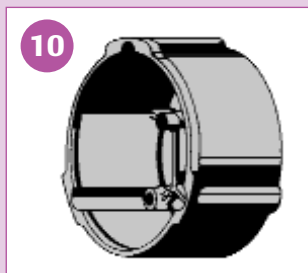
7 Bearing with cover

8 Stator



9 Rectifier

10 Slip ring end bracket



11 Capacitor

12 Regulator

FOR FURTHER INFORMATION, PLEASE CONTACT US.



EXAMPLE



Company: .....

Customer code: .....

Name: .....

Fax number: .....

Truck make: .....

Truck type : ..... Serial nr: .....

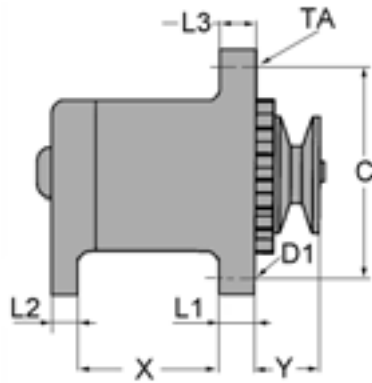
FAX FORM: ALTERNATORS

- 1 TY ..... type of alternator (as per picture)
- 2 U ..... voltage (volt)
- 3 I ..... current (amps)
- 4 L1 ..... please advise dimensions as per picture (mm)
- 5 L2 ..... please advise dimensions as per picture (mm)
- 6 L3 ..... please advise dimensions as per picture (mm)
- 7 X ..... please advise dimensions as per picture (mm)
- 8 Y ..... please advise dimensions as per picture (mm)
- 9 D1 ..... diameter of mounting hole as per picture (mm)
- 10 TA ..... type of thread
- 11 ST-PO ..... position of mounting holes (see diagram)
- 12 C ..... please advise dimensions as per picture (mm)
- 13 REG ..... regulator yes/no
- 14 KS ..... cooling fan: I = internal cooling , U = external cooling
- 15 VAP ..... vacuum pump yes/no
- 16 TY-FI ..... type of plug (as per picture)
- 17 AT-RI ..... quantity of belts

## SPECIFICATION OF TYPES

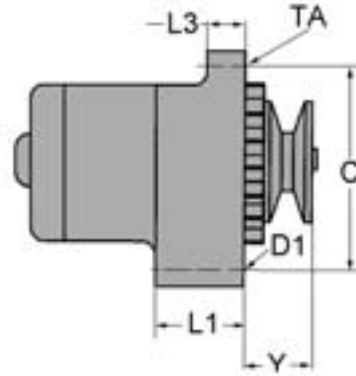
### type A:

3-bolt fixing



### type B:

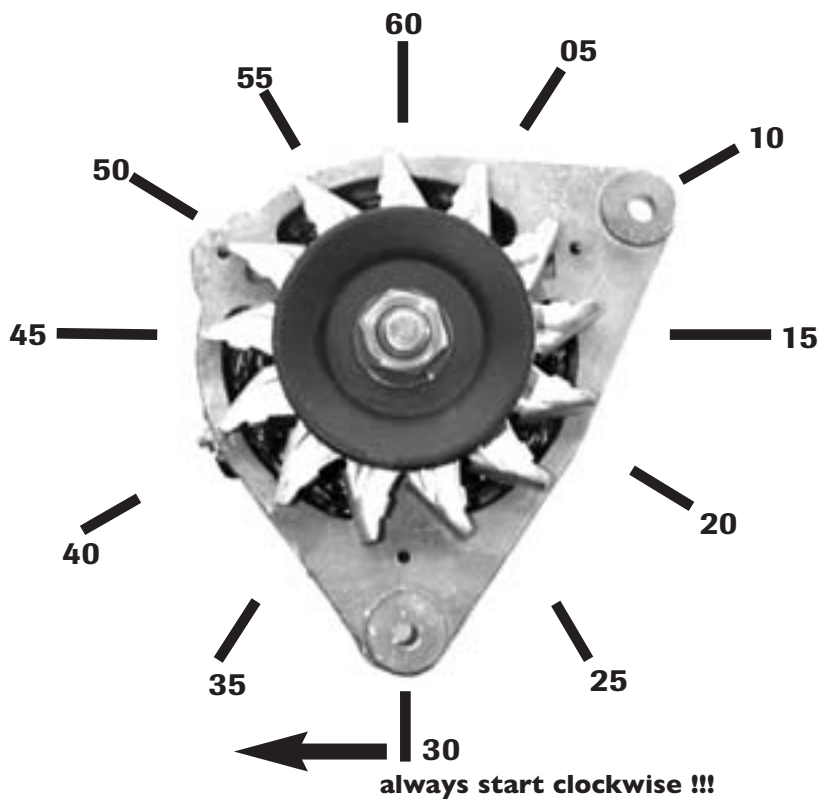
2-bolt fixing



### position of mounting holes

- 1) Hold up the alternator with the front facing yourself.
- 2) Hold the main fixing holes at 30 degrees.
- 3) Determine the position of the other fixing holes. (in this case 30-10).

## POSITION OF MOUNTING HOLES





<b>TYPE 1</b> 	<b>TYPE 2</b> 	<b>TYPE 3</b> 	<b>TYPE 4</b> 	<b>TYPE 5</b> 	<b>TYPE 6</b> 	<b>TYPE 7</b> 	<b>TYPE 8</b> 
<b>TYPE 9</b> 	<b>TYPE 10</b> 	<b>TYPE 11</b> 	<b>TYPE 12</b> 	<b>TYPE 13</b> 	<b>TYPE 14</b> 	<b>TYPE 15</b> 	<b>TYPE 16</b> 
<b>TYPE 17</b> 	<b>TYPE 18</b> 	<b>TYPE 19</b> 	<b>TYPE 20</b> 	<b>TYPE 21</b> 	<b>TYPE 22</b> 	<b>TYPE 23</b> 	<b>TYPE 24</b> 
<b>TYPE 25</b> 	<b>TYPE 26</b> 	<b>TYPE 27</b> 	<b>TYPE 28</b> 	<b>TYPE 29</b> 	<b>TYPE 30</b> 	<b>TYPE 31</b> 	<b>TYPE 32</b> 
<b>TYPE 33</b> 	<b>TYPE 34</b> 	<b>TYPE 35</b> 	<b>TYPE 36</b> 	<b>TYPE 37</b> 	<b>TYPE 38</b> 	<b>TYPE 39</b> 	<b>TYPE 40</b> 
<b>TYPE 41</b> 	<b>TYPE 42</b> 	<b>TYPE 43</b> 	<b>TYPE 44</b> 	<b>TYPE 45</b> 	<b>TYPE 46</b> 	<b>TYPE 47</b> 	<b>TYPE 48</b> 
<b>TYPE 49</b> 	<b>TYPE 50</b> 	<b>TYPE 51</b> 	<b>TYPE 52</b> 	<b>TYPE 53</b> 	<b>TYPE 54</b> 	<b>TYPE 55</b> 	

USED FOR ALLIS CHALMERS



REF 105TA5498

TY	A
U	12
L1	12,5
L2	13
L3	13
X	80
Y	40
C	155
REG	YES
AT-RI	1

**QUANTITY  
DISCOUNT**

USED FOR ALLIS CHALMERS



REF 105TA5499

TY	B
U	12
L1	21,5
L2	0
L3	16
X	0
Y	33,5
C	138
REG	YES
AT-RI	1

USED FOR ALLIS CHALMERS



REF 105TA5495

TY	B
U	12
L1	51
L2	0
L3	17
X	0
Y	32
C	170
REG	YES
AT-RI	1

USED FOR ALLIS CHALMERS



REF 103TA3616

TY	B
U	12
L1	56
L2	0
L3	10,2
X	0
Y	30,5
C	143
REG	YES
AT-RI	1

USED FOR CATERPILLAR



REF 103TA3627

TY	B
U	12
L1	51
L2	0
L3	14,5
X	0
Y	0
C	155
REG	YES
AT-RI	0

USED FOR CLARK



REF 105TA5537

TY	A
U	24
L1	13
L2	13
L3	13
X	80,5
Y	45
C	155
REG	YES
AT-RI	1

USED FOR CLARK



REF 105TA5529

TY	B
U	12
L1	51
L2	0
L3	16
X	0
Y	0
C	165
REG	YES
AT-RI	0

USED FOR HYSTER



REF 103TA3640

TY	A
U	12
L1	12,5
L2	13
L3	13
X	80
Y	40
C	155
REG	YES
AT-RI	1

USED FOR KOMATSU



REF 105TA5618

TY	A
U	12
L1	12
L2	12
L3	12
X	67
Y	42
C	155
REG	NO
AT-RI	1



### USED FOR KOMATSU



#### REF 105TA5613

TY	A
U	12
L1	13
L2	13
L3	13
X	80
Y	39,5
C	155
REG	YES
AT-RI	1



### USED FOR KOMATSU



#### REF 105TA5626

TY	B
U	12
L1	24
L2	0
L3	16
X	0
Y	31
C	140
REG	YES
AT-RI	1



### USED FOR KOMATSU



#### REF 106TA5139

TY	B
U	12
L1	24
L2	0
L3	16
X	0
Y	31
C	140
REG	YES
AT-RI	1



### USED FOR MANITOU



#### REF 106TA5137

TY	A
U	24
L1	12
L2	12
L3	12,5
X	76
Y	47,5
C	167
REG	YES
AT-RI	1



### USED FOR MITSUBISHI



#### REF 105TA5699

TY	A
U	12
L1	12,5
L2	12,5
L3	12,5
X	80
Y	40
C	155
REG	YES
AT-RI	1



### USED FOR NISSAN



#### REF 105TA5729

TY	A
U	12
L1	13
L2	13
L3	13
X	78
Y	56
C	175
REG	YES
AT-RI	2



### USED FOR NISSAN



#### REF 103TA3605

TY	A
U	12
L1	13,5
L2	13
L3	13
X	80
Y	35,5
C	172
REG	YES
AT-RI	1



### USED FOR TOYOTA



#### REF 103TA3636

TY	A
U	12
L1	20
L2	12
L3	16
X	67
Y	40
C	155
REG	YES
AT-RI	1



### USED FOR TOYOTA



#### REF 105TA5802

TY	A
U	12
L1	20
L2	13
L3	16
X	65
Y	40
C	155
REG	YES
AT-RI	1



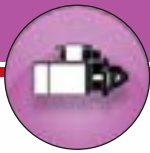
### USED FOR YALE



#### REF 106TA5141

TY	B
U	12
L1	51
L2	0
L3	17
X	0
Y	32
C	170
REG	YES
AT-RI	1





UNIVERSAL ALTERNATOR

UNIVERSAL ALTERNATOR

**EXCLUSIVE DISTRIBUTOR !**

**12 VOLT - 75 AMP**  
universal alternator set  
REF 111TA4102

**12 VOLT - 34 AMP**  
universal alternator set  
REF 112TA4857



FOR FURTHER INFORMATION, PLEASE CONTACT US.



UNIVERSAL ALTERNATOR



**12 VOLT  
75 AMP**



REF 111TA4101

UNIVERSAL ALTERNATOR

UNIVERSAL ALTERNATOR



**12 VOLT  
34 AMP**



REF 112TA4858

FOR FURTHER INFORMATION, PLEASE CONTACT US.

UNIVERSAL ALTERNATOR

BRACKET



REF 111TA4103

BRACKET



REF 111TA4104

BRACKET



REF 111TA4105

BRACKET



REF 111TA4106

BRACKET



REF 111TA4108

BRACKET



REF 111TA4109

BRACKET



REF 111TA4107

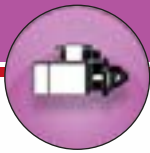
BRACKET



REF 112TA4859

FOR FURTHER INFORMATION, PLEASE CONTACT US.



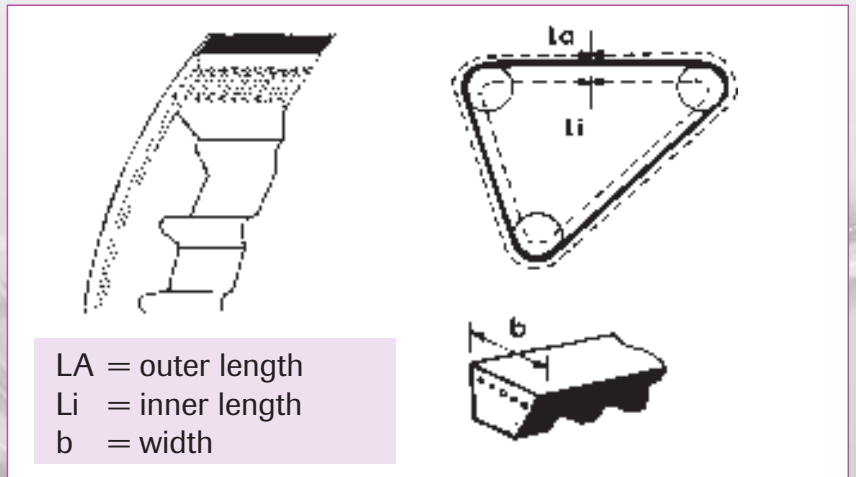


La	x	Li	x	b	REF
800	x	750	x	9,5	106TA9053
825	x	775	x	9,5	106TA9054
850	x	800	x	9,5	106TA9055
875	x	825	x	9,5	106TA9056
900	x	850	x	9,5	106TA9057
925	x	875	x	9,5	106TA9058
950	x	900	x	9,5	106TA9059
975	x	925	x	9,5	106TA9060
1000	x	950	x	9,5	106TA9061
1025	x	975	x	9,5	106TA9062
1050	x	1000	x	9,5	106TA9063
1075	x	1025	x	9,5	106TA9064
1100	x	1050	x	9,5	106TA9065
1125	x	1075	x	9,5	106TA9066
1150	x	1100	x	9,5	106TA9067
1175	x	1125	x	9,5	106TA9068
1200	x	1150	x	9,5	106TA9069
1225	x	1175	x	9,5	106TA9070
1250	x	1200	x	9,5	106TA9071
1275	x	1225	x	9,5	106TA9072
1300	x	1250	x	9,5	106TA9073
1325	x	1275	x	9,5	106TA9074
1350	x	1300	x	9,5	106TA9075
1375	x	1325	x	9,5	106TA9076
1500	x	1450	x	9,5	106TA9077



TOOTHED V-BELTS

800	x	735	x	12,5	106TA9078
825	x	760	x	12,5	106TA9079
850	x	785	x	12,5	106TA9080
875	x	810	x	12,5	106TA9081
900	x	835	x	12,5	106TA9082
925	x	860	x	12,5	106TA9083
950	x	885	x	12,5	106TA9084
975	x	910	x	12,5	106TA9085
1000	x	935	x	12,5	106TA9086
1025	x	960	x	12,5	106TA9087
1050	x	985	x	12,5	106TA9088
1075	x	1010	x	12,5	106TA9089
1100	x	1035	x	12,5	106TA9090
1125	x	1060	x	12,5	106TA9091
1150	x	1085	x	12,5	106TA9092
1175	x	1110	x	12,5	106TA9093
1200	x	1135	x	12,5	106TA9094
1225	x	1160	x	12,5	106TA9095
1250	x	1185	x	12,5	106TA9096
1275	x	1210	x	12,5	106TA9097
1300	x	1235	x	12,5	106TA9098
1325	x	1260	x	12,5	106TA9099
1350	x	1285	x	12,5	106TA9100
1375	x	1310	x	12,5	106TA9101
1500	x	1435	x	12,5	106TA9102



**THIS IS JUST A SMALL SELECTION,  
CALL FOR FURTHER DETAILS.**

EXAMPLE



Company: .....

Customer code: .....

Name: .....

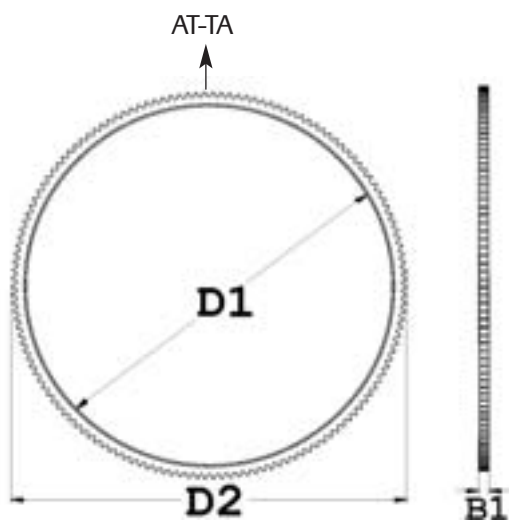
Fax number: .....

Truck make: .....

Truck type: ..... Serial nr.: .....

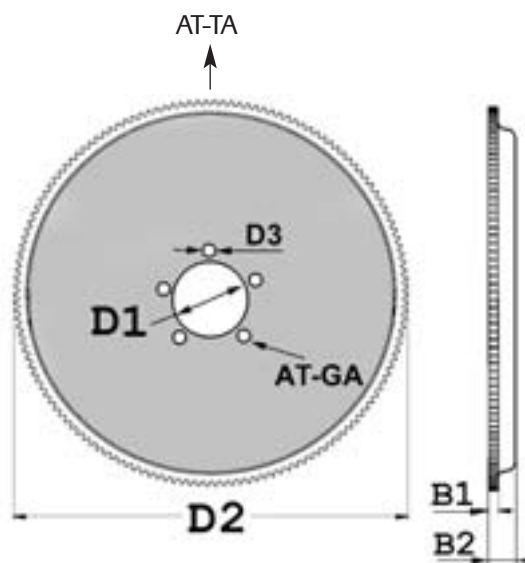
- 1 TY ..... type (as per picture)
- 2 D1 ..... inner diameter ring gear (mm)
- 3 D2 ..... outer diameter ring gear or flywheel (mm)
- 4 B1 ..... thickness of ring gear (mm)
- 5 B2 ..... total thickness of flywheel (mm)
- 6 AT-TA ..... quantity of teeth
- 7 AT-GA ..... quantity of bolt holes
- 8 D3 ..... diameter of bolt holes (mm)

TYPE A



ring gear

TYPE B



ring gear + flywheel





## USED FOR YALE



REF	106TA5105
TY	A
D1	325,0
D2	356,0
B1	9,0
Z	138,0

## USED FOR NISSAN



REF	106TA7127
TY	B
D1	30,0
D2	344,5
B1	12,0
B2	16,5
Z	134
AT-GA	6
D3	10,8

## USED FOR YALE



REF	106TA7128
TY	B
D1	48,0
D2	357,0
B1	9,0
B2	29,0
Z	138
AT-GA	6
D3	12,8

## USED FOR NISSAN



REF	106TA7129
TY	B
D1	30,0
D2	344,5
B1	9,0
B2	18,0
Z	134
AT-GA	6
D3	13,0

## USED FOR MITSUBISHI



REF	106TA7130
TY	A
D1	285,0
D2	337,0
B1	15,1
Z	110

## USED FOR CLARK



REF	106TA7131
TY	A
D1	279,0
D2	336,0
B1	10,0
Z	132,0

## USED FOR HYSTER



REF	106TA7132
TY	A
D1	328,0
D2	356,0
B1	9,0
Z	138

## USED FOR NISSAN



REF	106TA7133
TY	A
D1	312,0
D2	345,0
B1	12,0
Z	134,0

### USED FOR TOYOTA



REF	106TA7134
TY	A
D1	304,0
D2	340,0
B1	9,1
Z	133

### USED FOR YALE



REF	106TA7135
TY	A
D1	375,5
D2	404,0
B1	17,7
Z	126,0

### USED FOR HYSTER



REF	106TA7136
TY	A
D1	376,7
D2	404,8
B1	17,5
Z	126

### USED FOR LINDE



REF	106TA7137
TY	A
D1	247,0
D2	281,0
B1	8,0
Z	132

### USED FOR LINDE



REF	106TA7138
TY	A
D1	265,0
D2	287,0
B1	8,0
Z	135

### USED FOR HYSTER



REF	106TA7139
TY	A
D1	348,0
D2	376,0
B1	12,5
Z	117

### USED FOR NISSAN



REF	106TA7140
TY	A
D1	315,0
D2	345,0
B1	12,1
Z	134

### USED FOR NISSAN



REF	106TA7141
TY	A
D1	315,0
D2	345,0
B1	12,1
Z	113



USED FOR TOYOTA



REF	106TA7142
TY	B
D1	41,0
D2	340,0
B1	9,0
B2	18,0
Z	133
AT-GA	6
D3	11,2

USED FOR KOMATSU



REF	106TA7143
TY	A
D1	317,0
D2	351,0
B1	12,0
Z	126

USED FOR CLARK



REF	106TA7144
TY	A
D1	364,0
D2	391,0
B1	17,0
Z	122

USED FOR CLARK



REF	106TA7145
TY	A
D1	304,0
D2	337,0
B1	15,0
Z	110

RING GEARS AND FLYWHEELS

THIS IS JUST A SMALL SELECTION, CALL FOR FURTHER DETAILS





KEY SWITCHES



TECHNICAL DETAIL: KEY SWITCHES



EXAMPLE



Company: .....

Customer code: .....

Name: .....

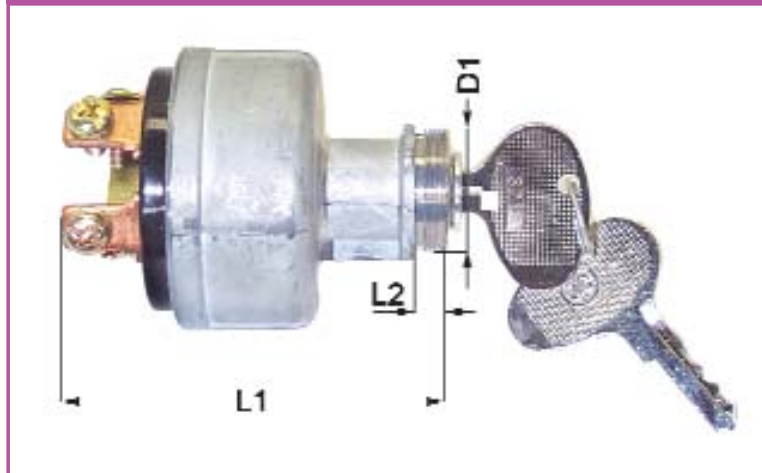
Fax number: .....

Truck make: .....

Truck type: ..... Serial nr.: .....

- ① NR-SC ..... number of corresponding diagram : see diagrams
- ② D1 ..... dimension : see picture
- ③ AT-TS ..... number of connections
- ④ TY-AS ..... type of connection, see table
- ⑤ L1 ..... dimension total length, see picture
- ⑥ L2 ..... dimension, see picture
- ⑦ OPM ..... remark
- ⑧ SL-NR ..... key number, is the number on the key (if any)
- ⑨ SL-RF ..... TVH-reference of the key
- ⑩ AT-SL ..... number of keys (ATTENTION : is the number of keys belonging to the key reference, not to the lock.)

DIMENSIONS



TYPE OF CONNECTION

- A = blade 4,8 mm
- B = blade 6,3 mm
- C = blade 9,5 mm
- D = pin
- E = screw
- F = socket
- G = solder
- H = studs





<p><b>1</b></p> <p>OFF ON</p>	<p><b>2</b></p> <p>OFF ON/ACC START (SPRING RETURN TO ON)</p>	<p><b>3</b></p> <p>OFF ON/ACC START (SPRING RETURN TO ON)</p> <p><b>WITH ANTI-RESTART</b></p>	<p><b>4</b></p> <p>ACC OFF ON/ACC START (SPRING RETURN TO ON)</p>
<p><b>5</b></p> <p>ACC OFF ON/ACC START (SPRING RETURN TO ON)</p> <p><b>WITH ANTI-RESTART</b></p>	<p><b>6</b></p> <p>ACC OFF ON/ACC GLOW START (SPRING RETURN TO ON)</p>	<p><b>7</b></p> <p>GLOW OFF ON/ACC START (SPRING RETURN TO OFF)</p>	<p><b>8</b></p> <p>OFF ON/ACC GLOW START (SPRING RETURN TO ON) (PUSH AND TURN)</p>
<p><b>9</b></p> <p>NC NO</p>	<p><b>10</b></p> <p>OFF ON/ACC GLOW START (SPRING RETURN TO ON)</p>	<p><b>11</b></p> <p>ON-1 OFF ON-2</p>	<p><b>12</b></p> <p>ACC OFF ON/ACC START (PUSH AND TURN) (SPRING RETURN TO ON)</p>
<p><b>13</b></p> <p>OFF/ACC ON (=PUSH) ON GLOW START (SPRING RETURN TO ON)</p>	<p><b>14</b></p> <p>OFF ON/ACC GLOW START (SPRING RETURN TO ON)</p> <p><b>WITH ANTI-RESTART</b></p>	<p><b>15</b></p> <p>OFF ON/ACC ACC (PUSH AND TURN) GLOW START (SPRING RETURN TO ON)</p>	<p><b>16</b></p> <p>OFF ON-1 ON-2 ON-3 ON-4 ACC</p>
<p><b>17</b></p> <p>OFF ON-1 ON-2 (TO RETURN TO ON-1 : PUSH AND TURN LEFT) ON-3</p>	<p><b>18</b></p> <p>OFF ACC ON START (SPRING RETURN TO ON)</p> <p><b>ANTI-THEFT STEERING-LOCK</b></p>	<p><b>19</b></p> <p>OFF ON-1 ON-2 (RELEASE POSITION)</p>	<p><b>20</b></p> <p>OFF ACC ON START (SPRING RETURN TO ON)</p> <p><b>ANTI-THEFT STEERING-LOCK WITH ANTI-RESTART</b></p>
<p><b>21</b></p> <p>ACC OFF ON-1 ON-2 ON-3</p>	<p><b>22</b></p> <p>GLOW OFF ON/ACC START (SPRING RETURN TO ON)</p> <p><b>WITH ANTI-RESTART</b></p>	<p><b>23</b></p> <p>OFF ON/ACC ON GLOW START (SPRING RETURN TO ON)</p> <p><b>WITH ANTI-RESTART</b></p>	<p><b>24</b></p> <p>ACC OFF ON/ACC GLOW START (SPRING RETURN TO ON)</p> <p><b>WITH ANTI-RESTART</b></p>
<p><b>25</b></p> <p>OFF ON/ACC START (PUSH AND TURN) (SPRING RETURN TO ON)</p>	<p><b>26</b></p> <p>GLOW OFF GLOW/START (SPRING RETURN TO OFF)</p>	<p><b>27</b></p> <p>OFF ON-1 ON-2 ON-3 ON-4</p>	

KEY SWITCHES



Engine type : B= gasoline, D= diesel, E= electric.

Fig.	Type	REF	Used for	Engine
1	Screw terminal (3 positions) Screw terminal (4 positions) Fast-on terminal-6,3 mm (3 positions)	106TA2617 106TA2618 107TA1615	HYSTER HYSTER, CLARK, CATERPILLAR,... HYSTER, YALE,...	B B B
2	Model for CLARK	106TA2620	CLARK	B
3	Ignition switch with lever (gasoline)	106TA2621		B
4	6 terminals (without pre-heating, 3 positions) 7 terminals (without pre-heating, 4 positions) 9 terminals (with pre-heating, 4 positions) 10 terminals (with pre-heating, 5 positions)	106TA2622 105TA4569 106TA2623 106TA2624	FENWICK, LINDE, CLARK,...	D D D
5	Key switch 701 yellow Key pack 701 yellow Key switch 702 red Key pack 702 red Key switch 501 Key 501 Key switch 502 Key 502 Key switch 503 Key 503 Key switch 530 Key 530	106TA2625 106TA2628 106TA2626 106TA2629 106TA2630 106TA2631 106TA2632 106TA2633 106TA2634 106TA2635 107TA1616 106TA2637	MIC/AMEISE/JUNGHEINRICH MIC/AMEISE/JUNGHEINRICH MIC/AMEISE/JUNGHEINRICH MIC/AMEISE/JUNGHEINRICH YALE, WAGNER,...	E E E E E E E E E E



KEY SWITCHES

Fig.	Type	REF	Used for	Engine*
6	Key switch 601	<b>106TA2638</b>	FENWICK, LINDE, MIC,...	E
	Key switch 633	<b>106TA2639</b>	STILL, FENWICK, LINDE,...	E
	Key switch 684	<b>106TA2640</b>	YALE, FENWICK, MIC,...	E
	Key switch 695	<b>106TA2641</b>	FENWICK, LINDE	E

BOSCH

7	0.342.006.001	<b>106TA2642</b>	CLARK, STILL, BT,...	E
	0.342.006.007	<b>106TA2643</b>	FENWICK, LINDE, STILL,...	E
	0.342.106.005	<b>106TA2644</b>		E
	0.342.201.009	<b>106TA2645</b>	FENWICK, LINDE	E
	0.342.201.010	<b>106TA2646</b>		E
	0.342.309.003	<b>106TA2647</b>	FENWICK, LINDE, STILL,...	B
	0.342.309.005	<b>106TA2648</b>	KALMAR	B
	0.342.309.006	<b>106TA2649</b>	CLARK, STEINBOCK,...	B
	0.342.309.008	<b>106TA2650</b>	CLARK,...	B
	0.342.309.010	<b>106TA2651</b>	FENWICK,...	B
	0.342.311.003	<b>106TA2652</b>	CLARK, FIAT-OM,...	B
	0.342.311.004	<b>106TA2653</b>	STILL, AMEISE,...	B
	0.342.316.002	<b>106TA2654</b>		B
	0.342.316.003	<b>106TA2655</b>	STILL, FENWICK, LINDE, ...	D
	0.342.315.001	<b>106TA2656</b>	CLARK, YALE, STILL, ...	D

SPECIAL TYPE: HYSTER

8	3 positions	<b>106TA2657</b>	HYSTER	B
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KEY SWITCH FOR JAPANESE LIFTRUCKS

9 More than 100 references available  
 With the original reference or serial number of the truck !  
 We can identify your needs.

*\* Engine type: B= gasoline, D= diesel, E= electric.*

**Also available "keys only"**  
**Use the number on your key + make**  
**Ex. : Key: E30 BOSCH**  
**Key: 702 MIC**

## SET KEY SWITCHES WITH DIFFERENT KEY NUMBERS



AT-AS	number of terminals	3
AT-ST	number of positions	2
D1	diameter	22 mm
L1	total length	49 mm
L2	length thread	13 mm

**REF 110TA8311**

**MASTER KEY:** fits on each above-mentioned key switch.  
Key number 9211.

**REF 110TA8309**

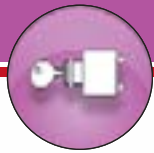
Set of 12 key switches  
with key numbers 9401 to 9412.

**REF 106TA6954**

Set of 25 key switches  
with key numbers 9401 to 9425.

**REF 110TA8310**

Set of 60 key switches  
with key numbers 9401 to 9460.



## COMPLETE RANGE OF KEYS



**KEYS**

Key number	Used for	Qty	REF
002	BT	1	115TA5399
003	BT	1	115TA5470
TOK3	HAMECH	1	122TA8961
001	HYUNDAI-HALLA, JUNGHEINRICH-STEINBOCK, KOMATSU	2	108TA4990
100	KOMATSU	2	108TA5022
1001	CLARK-SAMSUNG, STILL	1	118TA5815
1124	TOYOTA	1	110TA3531
123243	CATERPILLAR, MITSUBISHI, NISSAN	2	108TA5035
14109108	MORA	1	108TA5008
14603	BT, CLARK-SAMSUNG, JUNGHEINRICH-STEINBOCK, KALMAR LMV, KOMATSU, LINDE-LANSING, MANITOU, MIC, STILL	1	108TA4998
14607	JCB, JUNGHEINRICH-STEINBOCK, KOMATSU	1	110TA3492
14607	JCB, JUNGHEINRICH-STEINBOCK, KOMATSU	2	116TA5649
14609	CLARK-SAMSUNG, JUNGHEINRICH-STEINBOCK	1	110TA3458
14609	CLARK-SAMSUNG, JUNGHEINRICH-STEINBOCK	2	110TA3491
14610	ATLET-LAFIS, CLARK, LINDE-LANSING, MANITOU	1	108TA5033
14644	ATLET-LAFIS, CATERPILLAR, FENWICK & PEG, JUNGHEINRICH-STEINBOCK, KOMATSU, MIC	1	108TA5013
1500	JUNGHEINRICH, MAZDA, YALE	1	108TA5020
1D21	FABA, KOMATSU, JUNGHEINRICH-STEINBOCK	1	108TA5007
2233X	JUNGHEINRICH-STEINBOCK	1	110TA3496
2550	JUNGHEINRICH-STEINBOCK, YALE	1	110TA3434
26712K	LINDE, JUNGHEINRICH-STEINBOCK, STILL, YALE	1	110TA3486
2720	TCM	2	110TA3466
2722	TCM	2	110TA3468
2726	TCM	2	110TA3470
2730	TCM	2	110TA3472
2734	TCM	2	110TA3474
285	ATLET-LAFIS, LINDE-LANSING	1	110TA3532
301	ATLET-LAFIS	1	108TA5004
301	CLARK-SAMSUNG	2	110TA3442
302	TOYOTA	1	122TA8988
3095		1	122TA8983
31131	HYSTER, KOMATSU, TOYOTA	2	108TA5021
3341981010	BOSCH	1	109TA5981
3341982101	BOSCH	1	108TA5034
37223	STILL, SAXBY	1	110TA3502
3A36	JUNGHEINRICH, MIC	1	108TA5019
455	BT, CATERPILLAR, FENWICK & PEG, LINDE-LANSING, MITSUBISHI, ROCLA, STILL	1	108TA4991
456	FENWICK & PEG, JUNGHEINRICH-STEINBOCK, STILL, YALE	1	110TA3433
456	FENWICK & PEG, JUNGHEINRICH-STEINBOCK, STILL, YALE	2	110TA3314
4A251	JUNGHEINRICH-STEINBOCK, KOMATSU, NISSAN, STILL	1	110TA3462
501	KOMATSU, MIC, JUNGHEINRICH-STEINBOCK, STILL, WAGNER	1	106TA2631
501	KOMATSU, MIC, JUNGHEINRICH-STEINBOCK, STILL, WAGNER	2	115TA5484

O.E.M. references are purely indicative and do not imply that parts originate from the forklift manufacturer.



## COMPLETE RANGE OF KEYS

KEYS

Key number	Used for	Qty	REF
502	CLARK	1	106TA2633
503	FENWICK & PEG, JUNGHEINRICH-STEINBOCK, LINDE-LANSING, KOMATSU, STILL, WAGNER, YALE	1	106TA2635
508	JUNGHEINRICH	1	108TA5016
510		1	110TA3538
511	TCM	1	110TA3478
511323	TCM	2	110TA3463
511416	TOYOTA	2	108TA5037
512	TCM	2	110TA3479
512421	TCM	2	110TA3464
513	TCM	2	110TA3480
513454	TCM	2	110TA3465
515	TCM	2	110TA3481
530	LINDE-LANSING, STILL	1	106TA2637
590	KOMATSU, MIC, JUNGHEINRICH-STEINBOCK	1	110TA3498
596	LINDE-LANSING	1	110TA3508
600	TCM	2	110TA3476
601	FENWICK & PEG, KOMATSU, JUNGHEINRICH-STEINBOCK, LINDE-LANSING, LOC, MANITOU, MIC, PRAT, STILL, TCM, YALE	2	108TA5009
633	FENWICK & PEG, FIAT- OM PIMESPO, LINDE-LANSING, STILL	1	108TA5011
648	ALLIS CHALMERS-KALMAR AC, HYUNDAI-HALLA, JUNGHEINRICH-STEINBOCK, KOMATSU	2	108TA5023
684	CLARK, FENWICK & PEG, JUNGHEINRICH-STEINBOCK, LINDE-LANSING, MIC, PRAT, STILL, YALE	2	108TA4988
701	BT, JUNGHEINRICH-STEINBOCK, KOMATSU, MIC, MITSUBISHI, TCM	1	110TA3533
701	BT, JUNGHEINRICH-STEINBOCK, KOMATSU, MIC, MITSUBISHI, TCM	2	122TA8971
701	BT, JUNGHEINRICH-STEINBOCK, KOMATSU, MIC, MITSUBISHI, TCM	3	108TA4993
702	BT, JUNGHEINRICH-STEINBOCK, KOMATSU, MIC	3	108TA4992
724	CLIMAX-COVENTRY, KALMAR, TCM	2	110TA3482
735	CLIMAX-COVENTRY, KALMAR, TCM	2	110TA3483
738	JUNGHEINRICH-STEINBOCK	1	108TA5018
738	JUNGHEINRICH-STEINBOCK	3	110TA3353
7725	HYSTER, STILL, YALE	2	110TA3438
7730	LINDE-LANSING, STILL	1	110TA3507
777	CLARK, SAMSUNG	2	110TA3537
802	LINDE-LANSING	2	108TA5030
83353	ALLIS CHALMERS, CATERPILLAR, MITSUBISHI, HYSTER, TOYOTA, YALE	2	108TA4989
835	CLIMAX-COVENTRY, KALMAR, TCM	1	110TA3301
846	CLIMAX-COVENTRY, KALMAR, TCM	2	110TA3484
8D15	BT, CLARK, HYSTER, YALE	1	110TA3441
8R15	CLARK, SAMSUNG	1	122TA8963
9211		1	115TA5464
92274	CATERPILLAR, LINDE-LANSING, SANDERSON, STILL	1	110TA3536
92278	LINDE-LANSING	2	110TA3540
93201	LANSING	1	108TA5027
9401		1	122TA8945
9402		1	122TA8955
9403		1	122TA8949
9404		1	122TA8954
9405		1	122TA8953
9406		1	122TA8956
9407		1	122TA8951
9408		1	122TA8952
9409		1	122TA8947
9410		1	122TA8948
9411		1	122TA8981
9412		1	122TA8946
9413		1	122TA8941
9414		1	122TA8977

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## COMPLETE RANGE OF KEYS

Key number	Used for	Qty	REF
9415		1	122TA8968
9416		1	116TA5650
9417		1	122TA8975
9418		1	122TA8979
9419		1	122TA8982
9420		1	122TA8978
9421		1	122TA8966
9422		1	122TA8976
9423		1	122TA8980
9424		1	122TA8974
9425		1	122TA8973
9901	JLG	1	115TA5467
A01	CLARK-SAMSUNG	1	110TA3443
A03	CLARK-SAMSUNG	1	110TA3444
A04	CLARK, HYSTER	1	110TA3445
A05	CLARK, HYSTER	1	110TA3446
A08	CLARK, HYSTER	1	110TA3447
A09	CLARK, HYSTER	1	110TA3448
A10	CLARK, HYSTER	1	110TA3449
A11	CLARK, HYSTER	1	110TA3450
A13	CLARK, HYSTER	1	110TA3451
A14	CLARK, HYSTER	1	110TA3452
A16	CLARK, HYSTER	1	110TA3454
A18	CLARK, HYSTER	1	110TA3455
A19	CLARK, HYSTER	1	110TA3456
A20	CLARK, HYSTER	1	110TA3457
AA2AB	ALBRIGHT	2	110TA3506
C250	CROWN	1	110TA3432
CH512	CLARK-SAMSUNG, NISSAN	1	110TA3503
CH512	CLARK-SAMSUNG, NISSAN	2	118TA5814
CH650	JLG	1	110TA3437
CH751	CATERPILLAR, CROWN, HYSTER, LINDE-LANSING, YALE	1	108TA5000
CH751	CATERPILLAR, CROWN, HYSTER, LINDE-LANSING, YALE	2	115TA5482
CROWN	CROWN	1	110TA3228
DAV2313E	FENWICK	1	110TA3487
E01	BOSCH	1	110TA3511
E02	BOSCH, WAGNER	1	110TA3512
E03	BOSCH, LINDE-LANSING, STILL	1	110TA3459
E04	BOSCH, STILL	1	110TA3513
E08	BOSCH	1	110TA3539
E10	BOSCH, BT, STILL	1	110TA3514
E11	BOSCH, LINDE-LANSING, STILL	1	108TA5026
E12	BOSCH, STILL	1	110TA3515
E13	BOSCH, STILL	1	115TA5481
E14	BOSCH, STILL	1	110TA3516
E15	BOSCH, STILL	1	110TA3517
E16	BOSCH, STILL	1	110TA3518
E19	BOSCH, STILL	1	110TA3519
E24	BOSCH, MANITOU	1	110TA3490
E25	BOSCH, WAGNER	1	110TA3520
E254	BOSCH, JUNGHEINRICH-STEINBOCK, KOMATSU	1	108TA5012
E254	BOSCH, JUNGHEINRICH-STEINBOCK, KOMATSU	2	122TA8944
E26	BOSCH, STILL, WAGNER	1	110TA3521
E27	BOSCH, WAGNER	1	110TA3522
E28	BOSCH, STILL	1	110TA3523
E29	BOSCH, STILL	1	110TA3524
E30	BOSCH, BT, CLARK-SAMSUNG, FENWICK & PEG, JUNGHEINRICH-STEINBOCK, LINDE-LANSING, MANITOU, O&K, SICHELSDIT, STILL, YALE	1	108TA4994

## COMPLETE RANGE OF KEYS

Key number	Used for	Qty	REF
E31	BOSCH, STILL	1	110TA3525
E33	BOSCH, WAGNER	1	110TA3526
E34	BOSCH, WAGNER	1	110TA3510
E35	BOSCH, STILL	1	110TA3527
E36	BOSCH, STILL	1	122TA8986
E37	BOSCH, STILL	1	110TA3528
E41	BOSCH, BT, KALMAR, STILL, TOYOTA, WAGNER	1	108TA4995
E42	BOSCH, STILL	1	123TA9743
E43	BOSCH, STILL	1	122TA8984
E44	BOSCH, LINDE-LANSING	1	115TA5478
E45	BOSCH, BT, STILL	1	110TA3529
E47	BOSCH, STILL	1	110TA3530
E80	BOSCH, CLARK-SAMSUNG, JUNGHEINRICH-STEINBOCK	1	108TA5005
EK 333	BOSCH, JUNGHEINRICH-STEINBOCK	1	122TA8958
F315	TENNANT	1	122TA8985
FS933	LINDE-LANSING	1	115TA5465
FS880	CLIMAX COVENTRY, KALMAR, LINDE-LANSING, STILL	1	108TA5024
FS882	LINDE-LANSING	1	110TA3499
FS884	LINDE-LANSING	1	122TA8943
FS885	LINDE-LANSING	1	108TA5028
FS888	JUNGHEINRICH-STEINBOCK, KOMATSU, LINDE-LANSING	1	108TA5032
FS936	LINDE-LANSING	1	110TA3500
H800	HITACHI	1	122TA8942
HD62	DAEWOO	1	110TA3535
HD82	DAEWOO	1	110TA3534
HF44	JUNGHEINRICH-STEINBOCK, YALE	1	110TA3439
INDAK	TENNANT	2	110TA3504
K03	BOSCH, BT, JUNGHEINRICH-STEINBOCK, LINDE-LANSING, STILL, TOYOTA	1	108TA4996
K11	BOSCH, JUNGHEINRICH-STEINBOCK, LINDE-LANSING, STILL	1	108TA5017
K30	BOSCH	1	108TA5014
K720	TCM	2	110TA3467
K722	TCM	2	110TA3469
K726	TCM	1	110TA3471
K730	CLIMAX-COVENTRY, KALMAR, TCM	2	110TA3473
K734	CLIMAX-COVENTRY, KALMAR, TCM	2	110TA3475
K80	CLARK-SAMSUNG, LINDE-LANSING, STILL	1	108TA5029
KN101	CLARK	1	110TA3541
LL11	CATERPILLAR	1	122TA8969
LUCAS	CATERPILLAR, CLIMAX-COVENTRY, JCB, JUNGHEINRICH-STEINBOCK, KOMATSU, LINDE-LANSING, MANITOU, STILL, YALE	1	110TA3257
MC1	HYSTER, LINDE-LANSING	1	110TA3366
MC1	HYSTER, LINDE-LANSING	2	110TA3224
MC35	LINDE-LANSING	1	115TA5468
MIT2R	CLARK-SAMSUNG	1	122TA8957
N1417	NISSAN	1	110TA3435
P107	JUNGHEINRICH-STEINBOCK, MIC, KOMATSU	1	110TA3493
P41		1	115TA5475
P50	JUNGHEINRICH-STEINBOCK	1	110TA3436
P56	JUNGHEINRICH-STEINBOCK, STILL	1	110TA3485
PK556	CATERPILLAR, CLARK, HYSTER, JUNGHEINRICH-STEINBOCK, YALE	2	108TA5003
R032P	SPIJKSTAAL	1	115TA5473
S25	BOSCH	1	115TA5477
T251	JUNGHEINRICH-STEINBOCK	1	110TA3494
T800A	CLIMAX-COVENTRY, KALMAR, NICHYU-NYK	2	108TA5006
TAF1	LINDE-LANSING, STILL	1	110TA3311
UN13	MANITOU	1	110TA3488
WA01	MANITOU	1	122TA8950
WA05	MANITOU	1	122TA8959
YAL26	UPRIGHT	1	122TA8965

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