

Technical Information

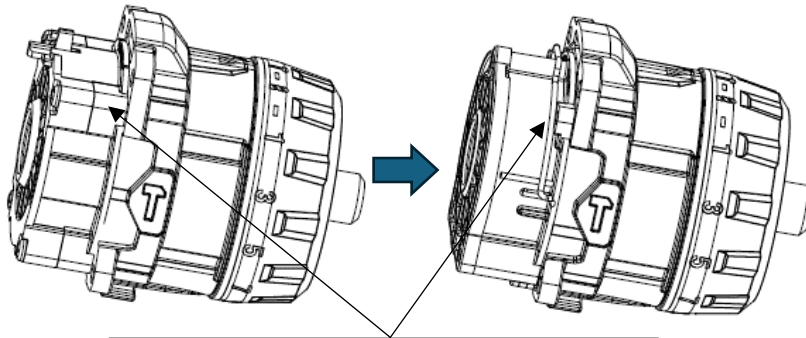
DW744

1 Outline

| | |
|----------------|--|
| Title | Change of Gear assemblies, Housing sets, Speed changed lever assembly, Leaf spring |
| Model | DDF486, DHP486, XFD14, XPH14 |
| Country | All countries |
| Reason | To improve operability of Speed change lever. |

2 Detailed information

[1][2][3][4]: The shape of Gear assembly has been changed as follows:



<Difference>
Current: without Wire → New: with Wire

Change of the overall length in accordance with the change of Gear assembly

DHP486, XPH14: 178mm → 180mm
DDF486, XFD14: 178mm → 179mm

Current parts needed to repair the current Gear assembly

- Housing set
- Speed change lever assembly
- Leaf spring

[5][6]: Change of Speed change lever



with Compression spring 4



without Compression spring 4



The shape of bottom surface is different.



[7]: Change of Leaf spring

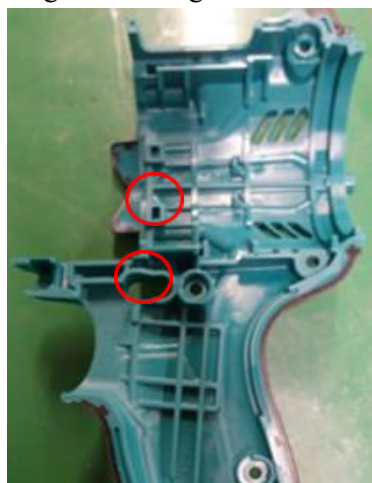


Thickness: 2.8mm



Thickness: 1.9mm

[8][9][10]: Change of Housing set



The above photos are the right side of current and new Housing.

- The shape of ribs (with red circles) have been changed.
- The overall length of Housing has been changed.

Repair the machine with the current parts as a set or the new parts as a set.

The repair steps using either the current parts or the new parts are shown on pages 5 to 9. The other repair steps are the same.

3 Parts information

| | Item No. | Current part | Q'ty | I/C | H/S | S/P | New part | Q'ty | Note |
|-----|----------|---|------|-----|-----|-----|--|------|--|
| [1] | 008 | GEAR ASSEMBLY ----- 122F80-3 | 1 | S | OK | C | GEAR ASSEMBLY ----- 122H97-8 | 1 | DHP486, XPH14 The new parts can be substituted for the current parts as sets of [5][7][8] or [5][7][9] or [5][7][10]. |
| [2] | 008 | GEAR ASSEMBLY ----- 122H10-6 | 1 | S | OK | C | GEAR ASSEMBLY ----- 122H97-8 | 1 | DHP486 The new parts can be substituted for the current parts as a set of [5][7][8]. |
| [3] | 008 | GEAR ASSEMBLY ----- 122F81-1 | 1 | S | OK | C | GEAR ASSEMBLY ----- 122H98-6 | 1 | DDF486, XFD14 The new parts can be substituted for the current parts as sets of [5][7][8] or [5][7][9] or [5][7][10]. |
| [4] | 008 | GEAR ASSEMBLY ----- 122D49-5 | 1 | S | OK | C | GEAR ASSEMBLY ----- 122H98-6 | 1 | DDF486 The new parts can be substituted for the current parts as a set of [5][7][8]. |
| [5] | 005 | SPEED CHANGE LEVER ASSEMBLY ----- 127494-5 | 1 | ← | OK | C | SPEED CHANGE LEVER ----- 4132E1-0 | 1 | DHP486, XPH14, DDF486, XFD14 (When repairing Gear assembly) The new parts can be substituted for the current parts as sets of [1][7][8] or [1][7][9] or [1][7][10] or [2][7][8] or [3][7][8] or [3][7][9] or [3][7][10] or [4][7][8]. |

| | Item No. | Current part | Q'ty | I/C | H/S | S/P | New part | Q'ty | Note |
|------|------------|--|------|-----|-----|-----|----------------------------------|------|--|
| [6] | 005 C10 | COMPRESSION SPRING 4 ----- 233438-6 | 2 | / | OK | C | / | / | The component of the current parts of [5]. |
| [7] | 004 | LEAF SPRING ----- 232220-0 | 2 | ← | OK | C | LEAF SPRING ----- 232493-5 | 2 | DHP486, XPH14, DDF486, XFD14 (When repairing Gear assembly) The new parts can be substituted for the current parts as sets of [1][5][8] or [1][5][9] or [1][5][10] or [2][5][8] or [3][5][8] or [3][5][9] or [3][5][10] or [4][5][8]. |
| [8] | 003 020 | HOUSING SET ----- 183R83-4 | 1 | ← | OK | C | HOUSING SET ----- 1831F6-2 | 1 | DHP486, DDF486 (When repairing Gear assembly) The new parts can be substituted for the current parts as sets of [1][5][7] or [2][5][7] or [3][5][7] or [4][5][7]. |
| [9] | 003 020 | HOUSING SET ----- 191M80-6 | 1 | ← | OK | C | HOUSING SET ----- 1831H7-4 | 1 | XPH14, XFD14 (When repairing Gear assembly) The new parts can be substituted for the current parts as sets of [1][5][7] or [3][5][7]. |
| [10] | 003 020 | HOUSING SET ----- 191M81-4 | 1 | ← | OK | C | HOUSING SET ----- 1831H8-2 | 1 | DHP486, DDF486 (When repairing Gear assembly) The new parts can be substituted for the current parts as sets of [1][5][7] or [3][5][7]. |

3-1 Marks of Interchangeability (I/C), Handling (H/S), Supplying (S/P)

| | | |
|---|-----|--|
| I/C (Interchangeability) | Yes | The new part can be substituted for the current and the current part can be substituted for the new. |
| | No | The new part cannot be substituted for the current and the current part cannot be substituted for the new. |
| | ← | The new part can be substituted for the current. |
| | → | The current part can be substituted for the new. |
| | S | Interchangeable as a set. |
| H/S (Handling for plants, agents, and distributors stock of the current parts) | OK | The current parts can be used for the subject item No(s). of the subject model(s). |
| | NOK | The current parts cannot be used for the subject item No(s). of the subject model(s), but can be used for the other item No(s) or the other models. |
| | T | The current parts in stock must be thrown away due to the technical reason. |
| S/P (Supplying the current parts for repair from plants) | L | The plants stop supplying the current parts under the above conditions [Model(s), Countries, Item No(s)]. However, they can supply the current parts under other conditions. |
| | D | The plants stop supplying the current parts. |
| | C | The plants continue to supply the current parts. |
| | Z | The plants continue supplying only for a certain period or amount. |
| | A | After the current parts in plant stock are cleared, they will be discontinued. |

4 Model and Country

| | Model | Country |
|------|---------------------------------|--|
| [1] | DHP486 | Argentina, Australia, Brazil, Cambodia, Canada, Chile, China, Colombia, Commonwealth of Dominica, Ecuador, Gambia, Hong Kong, India, Indonesia, Korea, Malaysia, Mexico, New Caledonia, New Zealand, Oman, Peru, Philippines, Qatar, Singapore, South Africa, Tahiti, Taiwan, Thailand, United Arab Emirates, Vietnam |
| | XPH14 | USA |
| [2] | DHP486 | Austria, Belgium, Bhutan, France, Germany, Italy, Netherlands, Poland, Russia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK |
| [3] | DDF486 | Argentina, Australia, Cambodia, Canada, Chile, China, Gambia, Hong Kong, India, Indonesia, Korea, Malaysia, Mexico, New Caledonia, New Zealand, Peru, Philippines, Qatar, Russia, Singapore, South Africa, Tahiti, Taiwan, Thailand, United Arab Emirates, Vietnam |
| | XFD14 | USA |
| [4] | DDF486 | Austria, Belgium, Bhutan, France, Germany, Netherlands, Poland, Russia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK |
| [5] | DDF486, DHP486, XFD14, XPH14 | All countries |
| [6] | | |
| [7] | | |
| [8] | DDF486 | Argentina, Australia, Austria, Belgium, Bhutan, Cambodia, Chile, China, France, Gambia, Germany, Hong Kong, India, Indonesia, Korea, Malaysia, Mexico, Netherlands, New Caledonia, New Zealand, Peru, Philippines, Poland, Qatar, Russia, Singapore, Slovenia, South Africa, Spain, Sweden, Switzerland, Tahiti, Taiwan, Thailand, Turkey, UK, United Arab Emirates, Vietnam |
| | DHP486 | Argentina, Australia, Austria, Belgium, Bhutan, Brazil, Cambodia, Chile, China, Colombia, Commonwealth of Dominica, Ecuador, France, Gambia, Germany, Hong Kong, India, Indonesia, Italy, Korea, Malaysia, Mexico, Netherlands, New Caledonia, New Zealand, Oman, Peru, Philippines, Poland, Qatar, Russia, Singapore, Slovenia, South Africa, Spain, Sweden, Switzerland, Tahiti, Taiwan, Thailand, Turkey, UK, United Arab Emirates, Vietnam |
| [9] | XFD14 | USA |
| | XPH14 | |
| [10] | DDF486 | Canada |
| | DHP486 | |

5 Implementation

<MKC products>

Combo kit for Europe: From January 2025 production

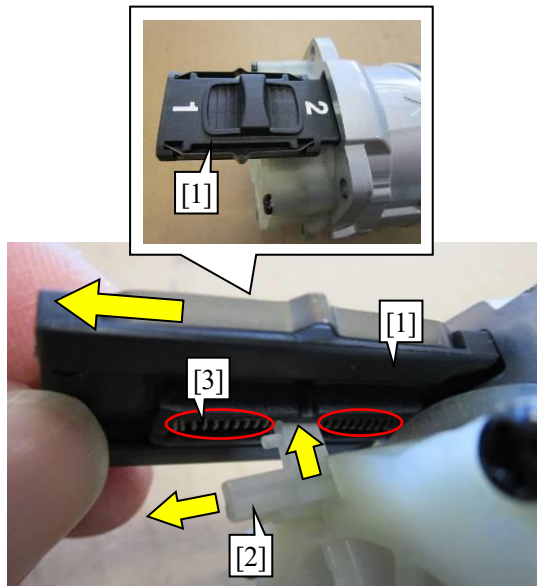
The other products: After the current parts in stock are cleared.

<MMR products>

From March 2025 production

Repair using the current parts

Fig.1

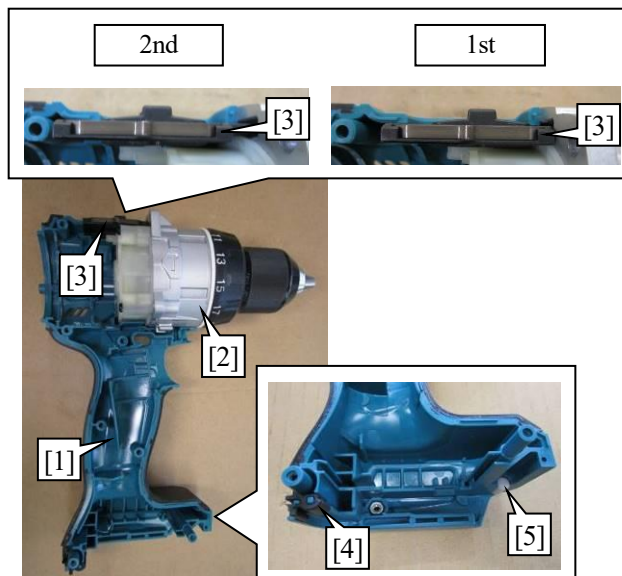


- 1 Assemble Speed change lever [1] to Speed change ring [2] on Gear assembly.

Tips

- Shift Speed change ring [2] to the high-speed mode (Rotor side) before assembling Speed change lever. [1].
- Insert the end of Speed change ring [2] between Compression springs 4 [3] (2 pcs), then pull Speed change lever [1] backward (Rotor side), and then insert the protrusion of Speed change ring [2] into Compression spring 4 [3].

Fig.2

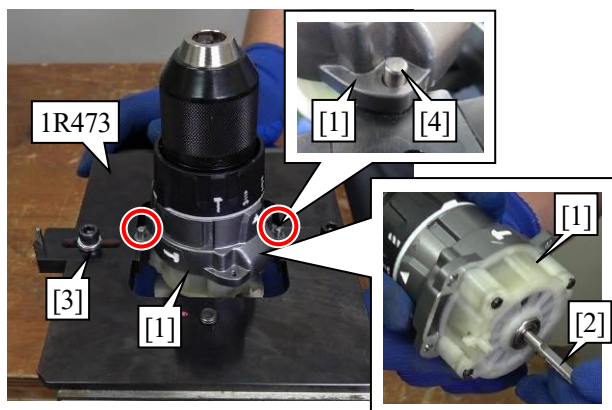


- 2 Assemble Gear assembly [2] and Speed change lever [3] to Housing L [1].

Note

- Assemble Speed change lever [3] with the position shifted to either 1st or 2nd.
- Check that Cushion (HP486, XPH14 only) [4] and Rubber pin 6 [5] are assembled.

Fig.3

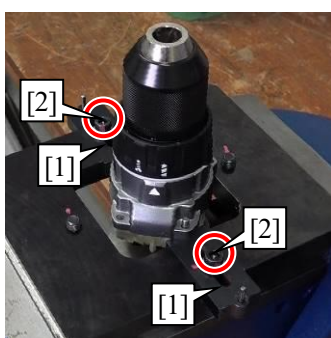


- 3 Assemble Pinion gear [2] to Gear assembly [1], then set Gear assembly [1] to 1R473.

Note

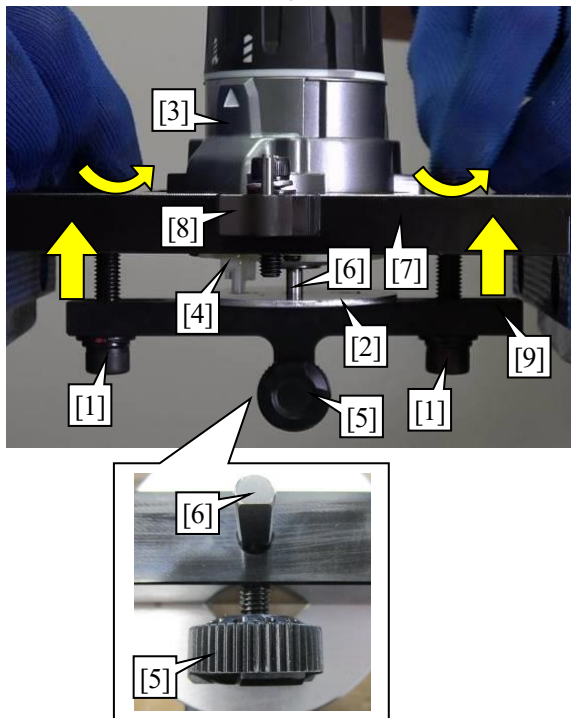
Adjust each position of Set plates [3] (2 pcs), then pass Pins 4 [4] (2 pcs) through the holes of Gear assembly [1].

Fig.4



- 4 Tighten Fixing bolts [2] (2 pcs) on Set plates [1] (2 pcs).

Fig.5



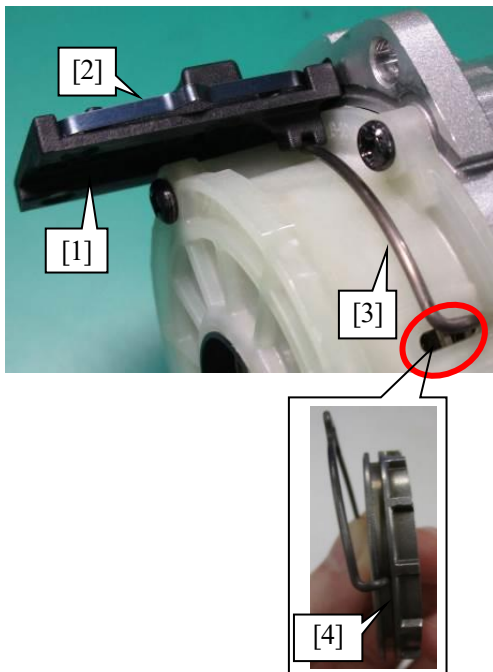
- 5 Lift up Pinion gear holder [9] by turning Fixing bolts [1] (2 pcs) until Plate [2] touches Speed change ring [4] of Gear assembly [3], then fix Pinion gear [6] by turning Knob screw [5].

Note

- In case that Gear assembly lifts up from Frame [7] or Set plate [8], Pinion gear holder [9] is raised up too much, so lower it a little.
- Face the flat portion of Pinion gear [6] to Knob screw [5], then tighten Knob screw [5].

Repair using the new parts

Fig. 9

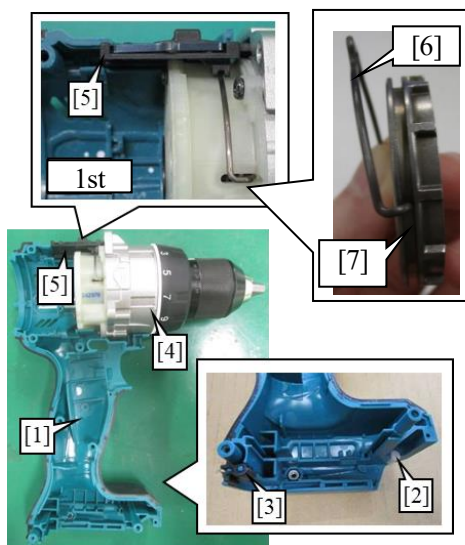


- 3 Assemble Leaf spring [2] (2 pcs) to Speed change lever [1].
- 4 Assemble Speed change lever [1] to Speed change wire (Gear assembly) [3].

Note

When assembling Speed change lever [1], hold the side surfaces (2 positions on the left and right sides of red circled portion) of Speed change wire [3]. (If Speed change wire [3] is spread or slid, the top end of Speed change wire [3] may come off from the groove of Internal gear 41 [4].)

Fig. 10

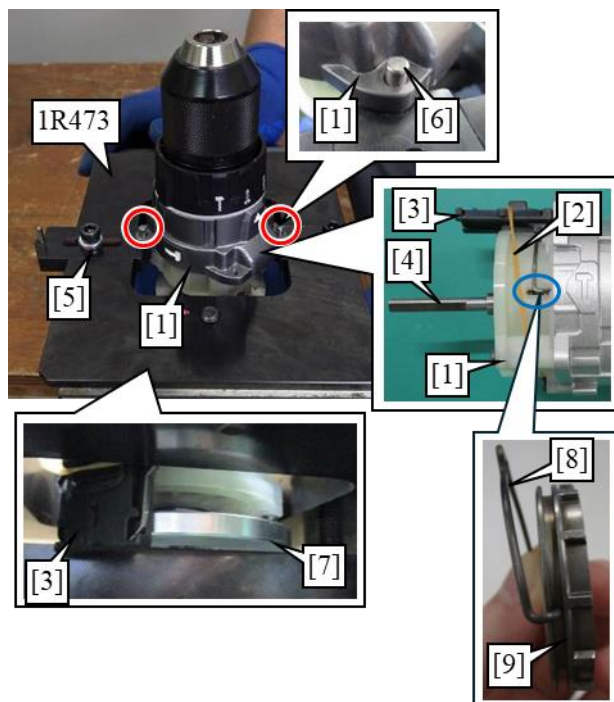


- 5 Assemble Gear assembly [4] and Speed change lever [5] to Housing L [1].

Note

- When assembling Gear assembly [4] and Speed change lever [5] to Housing L [1], hold Speed change lever [5] at 1st speed side (by pushing it against Gear assembly [4]). (If an excessive load is applied to Speed change wire [6], the top end of Speed change wire [6] may come off from the groove of Internal gear 41 [7].)
- Check that Cushion (DHP486 only) [3] and Rubber pin 6 [2] are assembled.

Fig. 16



- 3 Hold Gear assembly speed change wire [1] at 1st speed side with Rubber band [2] or Cable tie.

Tips

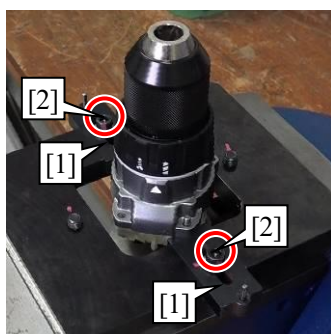
- It makes fixing easier to hold Gear assembly speed change wire [1] by assembling Speed change lever [3] to Gear assembly speed change wire [1] and holding Speed change lever [3].
- It is sufficient to hold at 1st speed side when Gear assembly side [1] faces downward.

- 4 Attach Pinion gear [4] to Gear assembly, then assemble Gear assembly [1] to 1R473.

Note

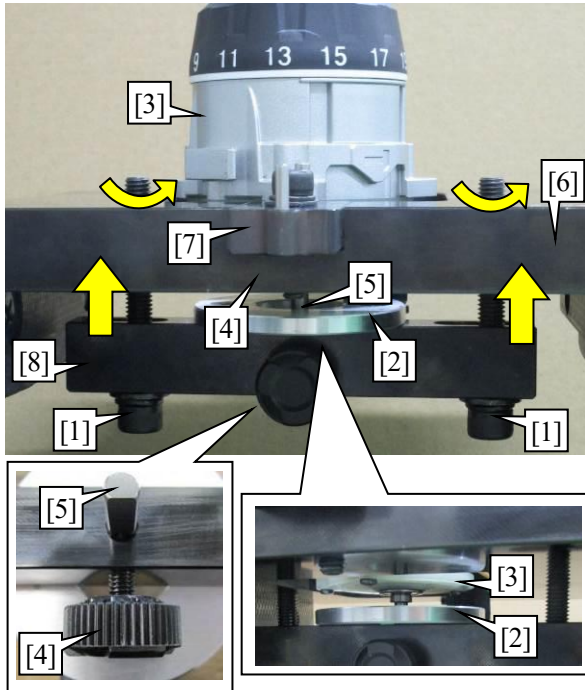
- Adjust the position of Set plate [5], then pass Pin 4 [6] (2 pcs) through the holes of Gear assembly [1].
- Be careful not to put Speed change lever [3] on the plate [7] of 1R473.
- When assembling Speed change lever [3], hold the side surfaces (2 positions on the left and right sides of blue circled portion) of Speed change wire. Attach Rubber band or the like [2] with Speed change lever [3] held at 1st speed side (by pushing it against Gear assembly [1]). (If an excessive load is applied to Speed change wire [8], the top end of Speed change wire [8] may come off from the groove of Internal gear 41 [9].)

Fig. 17



- 5 Tighten Fixing bolt [2] (2 pcs) on Set plate [1] (2 pcs).

Fig. 18



- 6 Lift Plate [2] to the position where it touches Gear assembly [3] by turning the bolt [1], then tighten the thumb screw [4] to fix Pinion gear [5].

Note

- Once Gear assembly [3] is lifted from Frame [6] or Set plate [7], Pinion gear holder [8] is lifted too much. Therefore, lower Pinion gear holder [8] slightly.
- Tighten the thumb screw [4] so that the flat portion of Pinion gear [5] positions to touch the thumb screw [4].