

FIG. LUBRICATION

(Type 'L' Grease, Item 1200):

- 22,23 Saturate Felt (23) with lightweight oil prior to assembly with Cap (22) onto Bushing (21a) and Spindle (21b).
- 21a,21b Lightly coat the O.D. of Spindle Shaft (21b) and I.D. of Bushing (21a) with grease.
- 21b Place a dab of grease in the rear slot of Spindle Shaft (21b).
- 8,9 Place .3 ounce (8.5g) grease in gear cavity of Gearcase Assemblies (8,9).
- 8,9 Coat the spindle shaft pocket in Gearcase Assemblies (8,9).
- 8,25 Lightly coat the Drive Pin (component pressed into gear in the right gearcase assembly) and I.D. and O.D. of Drive Pin Sleeve (25) with grease.
- 8,9,11 Completely coat all of the teeth of the Spiral Bevel Pinion on Rotor Assembly (11) and Spiral Bevel Bevel Gears in gearcase assemblies (8 and 9) with grease.



M12 CHZ

SERVICE PARTS LIST

Bulletin Date:
Jan-18

TTI Model Number: 018 099 015, 016

Starting Serial Number:

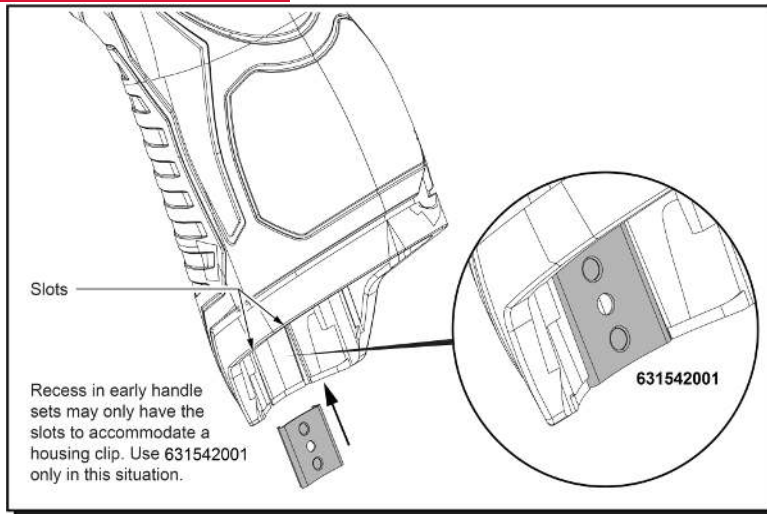
M12 FUEL™ HACKZALL

VERSION A - B2015

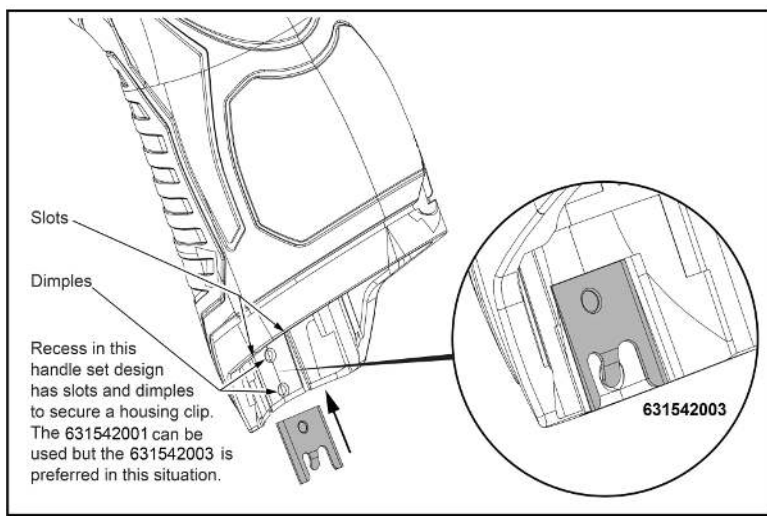
ITEM	PART NUMBER	PART DISCRIPTION	QTY (PCS)
1	634918001	SHOE	1
2	661113008	8-32 X 0.63" SCREW	6
3	563259001	RUBBER SEAL	1
4	200783002	QUIK-LOK® BLADE CLAMP KIT	1
4a	672184001	RETAINING RING	1
4b	672192007	FRONT CAM	1
4c	691261001	LOCK PIN	1
4d	672193002	REAR CAM	1
4e	672200001	SLEEVE	1
4f	672186001	TORSION SPRING	1
4g	514778002	SPRING COVER	1
5	661047001	M2.6 X 14MM SCREW	9
6	941048047	SERVICE NAMEPLATE	1
7	202869002	HANDLE ASSEMBLY	1
7a	-	HANDLE HALVE - RIGHT	1
7b	-	HANDLE HALVE - LEFT	1
8	202866001	RIGHT GEARCASE ASSEMBLY	1
9	202867002	LEFT GEARCASE ASSEMBLY	1
10	941312013	FUEL GAUGE LABEL	1
11	202864002	ROTOR ASSEMBLY	1
12	660165015	M4 X 10MM SCREW	2
14	202865002	MOTOR INSULATOR ASSEMBLY	1
14a	-	MOTOR INSULATOR HALVE - RIGHT	1
14b	-	MOTOR INSULATOR HALVE - LEFT	1
15	660165011	M4 X 12MM SCREW	4
16	660821004	4-20 X 0.76" SCREW	6
17	202868002	SWITCH / ELECTRONICS KIT	1
17a	-	PCB ASSEMBLY	1
17b	-	ON-OFF SWITCH	1
17c	-	TERMINAL BLOCK	1
17d	-	STATOR ASSEMBLY	1
17e	-	LED ASSEMBLY	1
18	526265001	LOCKING SHUTTLE	1
19	633852003	SHUTTLE SPRING	1
20	631542003	HOUSING CLIP	1
21	611964001	BUSHING	1

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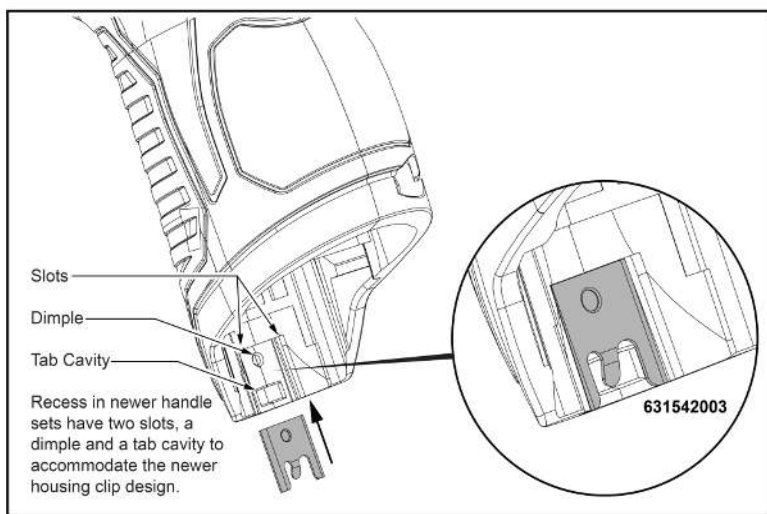
ITEM	PART NUMBER	PART DISCRIPTION	QTY (PCS)
22	633222001	FRONT CAP	1
23	902393001	FELT SEAL	1
24	902430001	ALUMINUM TAPE	2
25	693624001	DRIVE PIN SLEEVE	1
26	306462001	CONTRACTOR BAG	1
27	621489002	SPINDLE	1
30	520811001	ALIGNMENT PLUG - SERVICE TOOL	2
1200	-	TYPE L GREASE	1



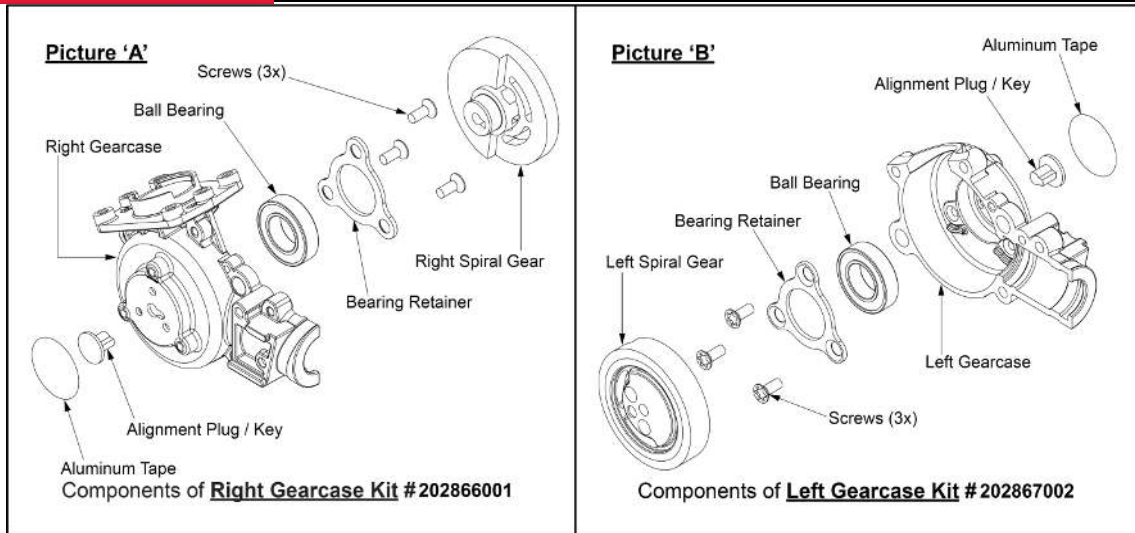
Early M12™ Handle Sets utilize **Housing Connection Clip No. 631542001**. Install this clip design by aligning the side rails of the clip with the two slots in the handle set. Gently push into place with the aid of a small flat blade screwdriver or a similar instrument. Be sure that the clip is properly seated in both slots and that the clip is flush to sub-flush to the end of the handle set. To remove the clip, use the same small flat blade screwdriver or a similar instrument and push the clip out of the handle set. If the clip is loose or will not stay in place, a needle nose pliers can be used to gently bend/pinch the side rails of the clip. If the clip is damaged do not use, replace with a new 631542001 housing clip.



Updated M12™ Handle Sets utilize **Housing Connection Clips No. 631542001 and 631542003**. (The 631542003 is a preferred upgrade). Install this clip design by aligning the side rails of the clip with the two slots in the handle set. Gently push into place with the aid of a small flat blade screwdriver or a similar instrument. Be sure that the clip is properly seated in both slots and that the tab of the clip snaps down in the round dimpled cavity of the handle set. Be sure that the clip is flush to sub-flush to the end of the handle set. To remove the clip, use the same small flat blade screwdriver or a similar instrument and lift up on the clip tab while pushing the clip out of the handle set. Use a needle nose pliers to gently rebend the clip tab if necessary. If the tab on the clip is damaged during this process and is loose or will not stay in place, replace with a new 631542003 clip.



Newer M12™ Handle Sets utilize **Housing Connection Clip No. 631542003**. Install this clip design by aligning the side rails of the clip with the two slots in the handle set. Gently push into place with the aid of a small flat blade screwdriver or a similar instrument. Be sure that the clip is properly seated in both slots and that the tab of the clip snaps down in the rectangular cavity of the handle set. Be sure that the clip is flush to sub-flush to the end of the handle set. To remove the clip, use the same small flat blade screwdriver or a similar instrument and lift the clip tab out of the cavity while pushing the clip out of the handle set. Use a needle nose pliers to gently rebend the clip tab if necessary. If the tab on the clip is damaged during this process and is loose or will not stay in place, replace with a new 631542003 clip.



Picture "A and B" show the components that make-up the Right and Left Gearcase kits for M12 FUEL™ Cordless Hackzall® 2520-20. Each kit contains one [1] Alignment Plug / Key and [1] round Aluminum adhesive backed disc (not sold separately) which will be needed when servicing / replacing the gearcase assemblies of the M12 FUEL™ Hackzall®.

The Right and Left helical gear assemblies are supported independently in their respective gearcase assembly and turn independently. Each of the helical gears have a counter weight and when the two gearcase halves are assembled together **gearing must be synchronized to eliminate excessive vibration.**

Synchronization of the two gear case halves can be accomplished by using the Alignment Plug / Key supplied with each gearcase kit. Anytime rotor assembly 202864002 has to be removed from the gearcase halves, helical gears will need to be resynchronized using the alignment plug / keys.

Synchronizing / Assembling Gearcase Kit Assemblies 202866001 – 202867002

Once the rotor assembly has been removed from the gearcase assembly the keyway cut into each helical gear will no longer be aligned with the gearcase keyway (fig. 1) due to the counter balance of the helical gear.

1. Rotate (by hand) helical gear in right gearcase (picture "A") until helical gear keyway is in-line with the gearcase keyway (fig. 2).
2. Install plug / key from kit into gearcase / helical gear keyway (fig. 3).
3. Install drive pin sleeve onto pin located on right helical gear (coat with type "L" grease).

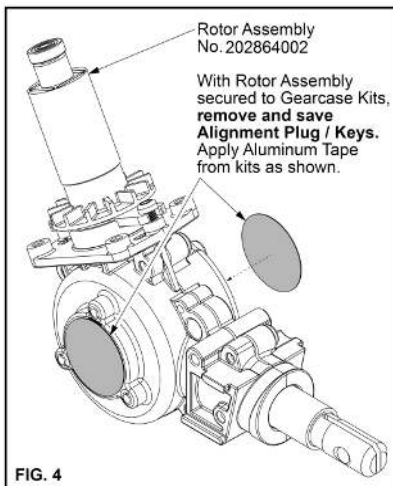


FIG. 4

4. Install spindle / gearcase bushing assembly into right gearcase (coat components with type "L" grease and make sure spindle lock pin hole faces right gearcase).

Note: If new felt seal is being installed saturate seal with a lightweight oil.

5. Place approximately 3.54g Type "L" grease onto teeth of right helical gear. (Set assembly aside).
6. Rotate (by hand) helical gear in left gearcase (picture "B") until helical gear keyway is in-line with the gearcase keyway (fig. 2).
7. Install plug / key from kit into gearcase / helical gear keyway (fig. 3).
8. Place approximately 3.54g Type "L" grease onto teeth of left helical gear.
9. Assemble lubricated left gearcase assembly onto lubricated right gearcase assembly and install four [4] gearcase screws.
10. Install motor assembly and secure to gearcase assembly.
11. Remove left and right alignment plug (s) and apply aluminum tape disc from kits to each side of gearcase (fig.4). **SAVE PLUGS** incase motor needs servicing or replacing.

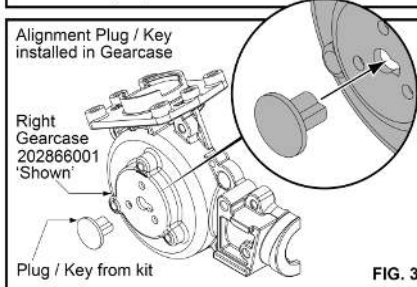
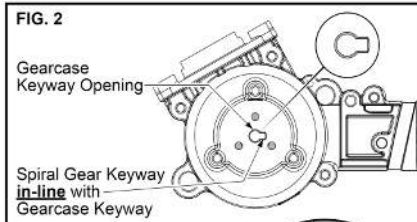
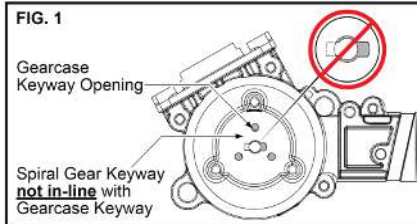


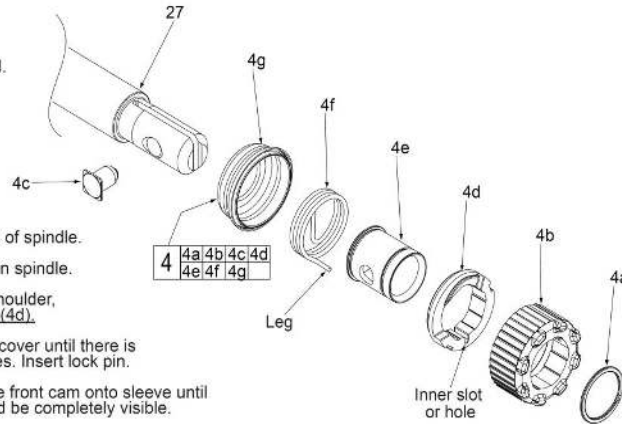
FIG. 3

REMOVING THE STEEL QUIK-LOK® BLADE CLAMP (49)

- Remove external retaining ring (4a) and pull front cam (4b) off.
- Pull lock pin (4c) out and remove remainder of parts and discard.

REASSEMBLY OF THE STEEL QUIK-LOK® BLADE CLAMP (4)

- Coat new lock pin with powdered graphite.
- Hold tool in a vertical position.
- Place spring cover (4g) onto spindle.
- Slide torsion spring (4f) onto spindle with spring leg on hole side of spindle.
- Slide sleeve (4e) onto spindle aligning hole on sleeve with hole in spindle.
- Slide rear cam (4d) over sleeve (4e) until it bottoms on sleeve shoulder, ensure leg of spring (4f) inserts into inner slot / hole in rear cam (4d).
- Rotate rear cam in the direction of the arrows located on spring cover until there is clearance for lock pin (4c) to be inserted into sleeve/spindle holes. Insert lock pin.
- Align front cam (4b) inner ribs with rear cam outer slots and slide front cam onto sleeve until it bottoms. Retaining ring groove on the spindle shaft (27) should be completely visible.
- Attach retaining ring (4a) by separating coils and inserting end of ring into groove, then wind remainder of ring into groove. Ensure ring is seated in groove.
- Blade clamp should rotate freely. During normal usage, debris may not allow blade clamp to rotate freely. The use of spray lubricant can help free blade clamp. In extreme conditions, follow these instructions to remove, clean and reassemble blade clamp.



AS AN AID TO REASSEMBLY, TAKE NOTICE OF WIRE ROUTING AND POSITION IN WIRE GUIDES AND TRAPS WHILE DISMANTLING TOOL.

BE CAREFUL AND AVOID PINCHING WIRES BETWEEN HANDLE HALVES WHEN ASSEMBLING.

