



# SERVICE PARTS LIST

**BULLETIN NO.**  
54-27-2470

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
<b>M12™ Copper Tubing Cutter</b>			Mar. 2015
CATALOG NO. <b>2471-20</b>	STARTING SERIAL NO. <b>B61A</b>	WIRING INSTRUCTION <b>SEE PAGE 5</b>	

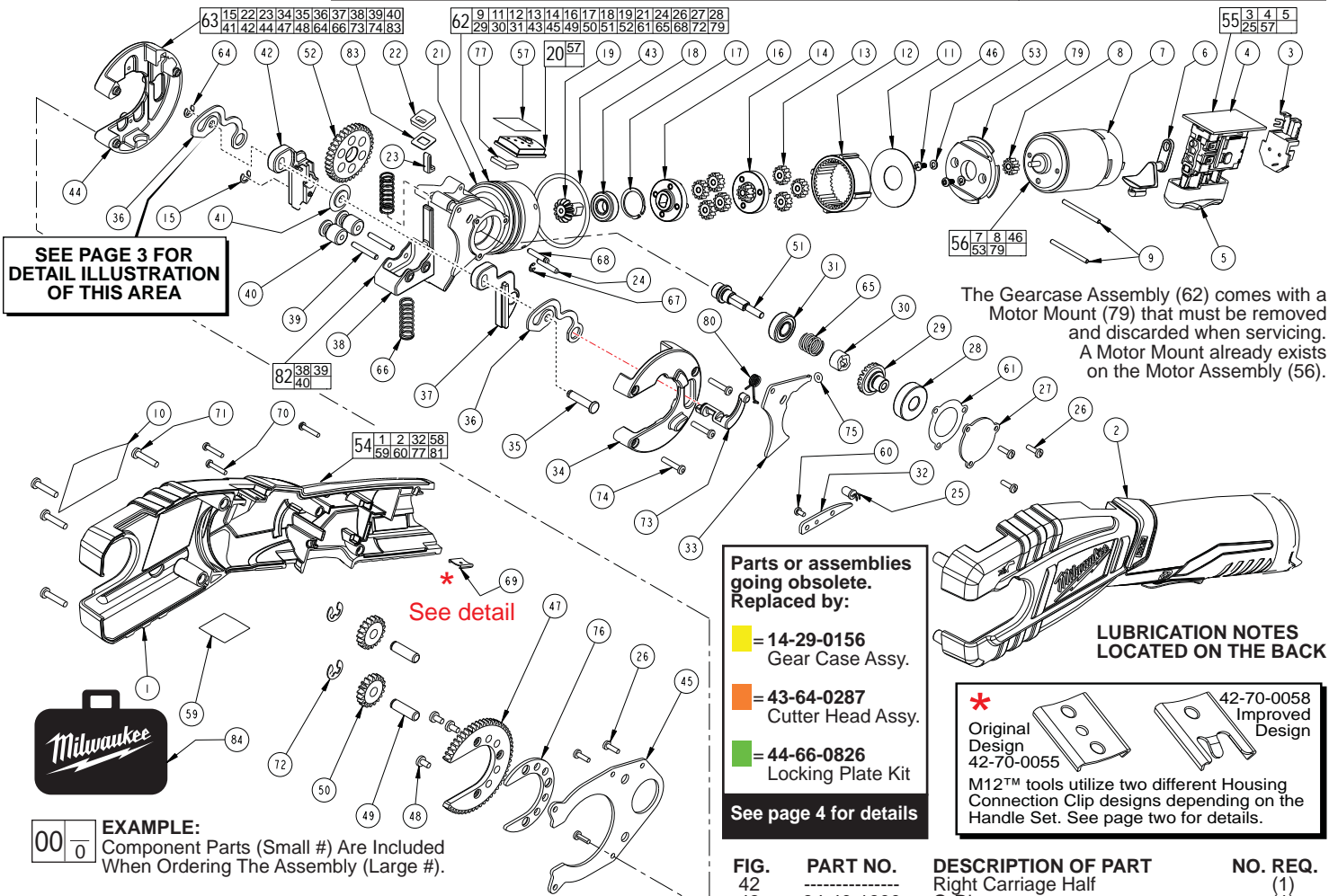
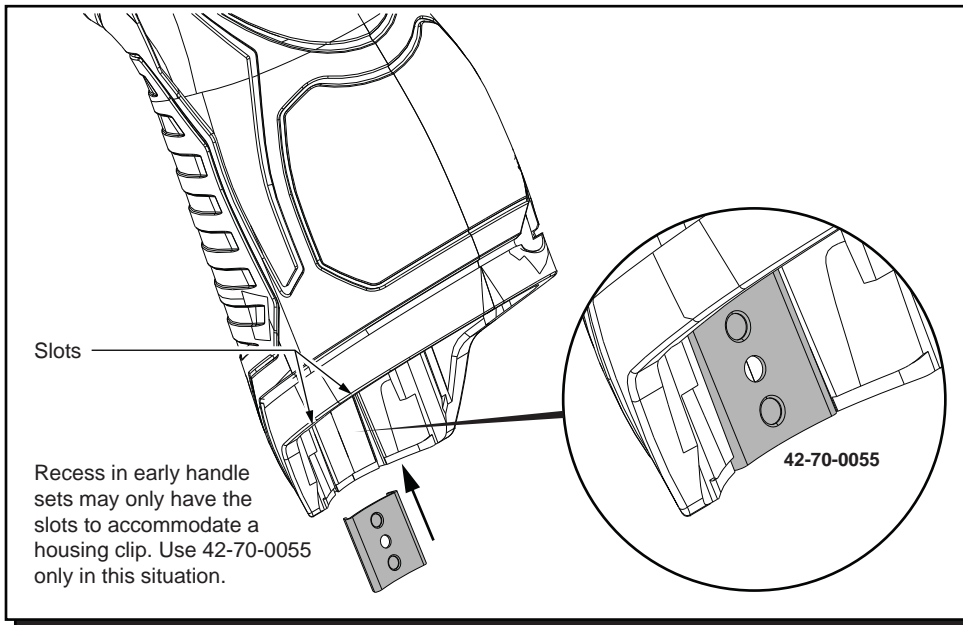
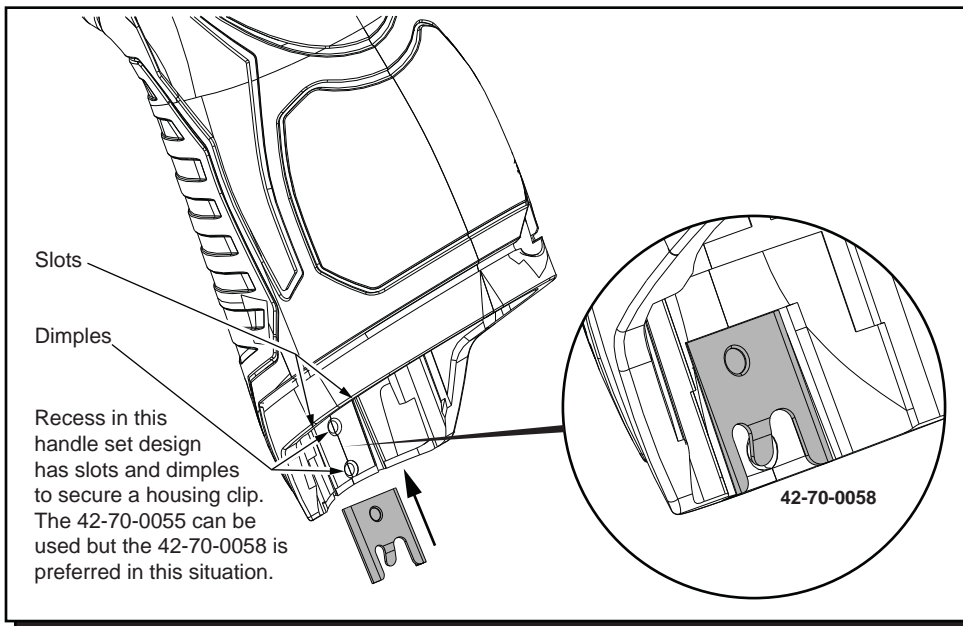


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	-----	Right Handle	(1)
2	-----	Left Handle	(1)
3	-----	Connector Block	(1)
4	-----	PCBA	(1)
5	-----	Switch	(1)
6	31-52-0125	Reversing Lever	(1)
7	-----	Motor	(1)
8	-----	Pinion	(1)
9	44-60-1530	Pin	(2)
10	12-20-2470	Service Nameplate Kit	(1)
11	-----	Plate	(1)
12	-----	Ring Gear	(1)
13	-----	Planet - 1st Stage	(1)
14	-----	Carriage - 1st Stage	(1)
15	42-70-0505	E Clip	(1)
16	-----	Carriage	(1)
17	-----	Snap Ring	(1)
18	-----	Bearing	(1)
19	-----	Bevel Pinion	(1)
20	22-06-0130	Fuel Gauge Assembly	(1)
21	-----	Gearcase Housing	(1)
22	44-66-0825	Locking Plate	(1)
23	-----	Lifter	(1)
24	-----	Stop Pin	(1)
25	23-28-0020	Service LED	(1)
26	06-82-5268	4-40 x 3/8" Pan Hd. Stt. Tapt. T-10	(6)
27	-----	Plate Cover	(1)
28	-----	Bearing	(1)
29	32-05-0205	Bevel Gear	(1)
30	32-10-0240	Clutch Cam	(1)
31	-----	Bearing	(1)
32	-----	Fixed Cam	(1)
33	44-10-0490	Stop Lever	(1)
34	-----	Cutter Head - Left	(1)
35	42-12-0210	Axle	(1)
36	40-50-0585	Cutting Spring	(2)
37	-----	Left Carriage Half	(1)
38	-----	Roller Carriage	(1)
39	-----	Roller Pin	(2)
40	-----	Roller	(1)
41	48-38-0010	Cutting Wheel (Pkg. of 2)	(1)

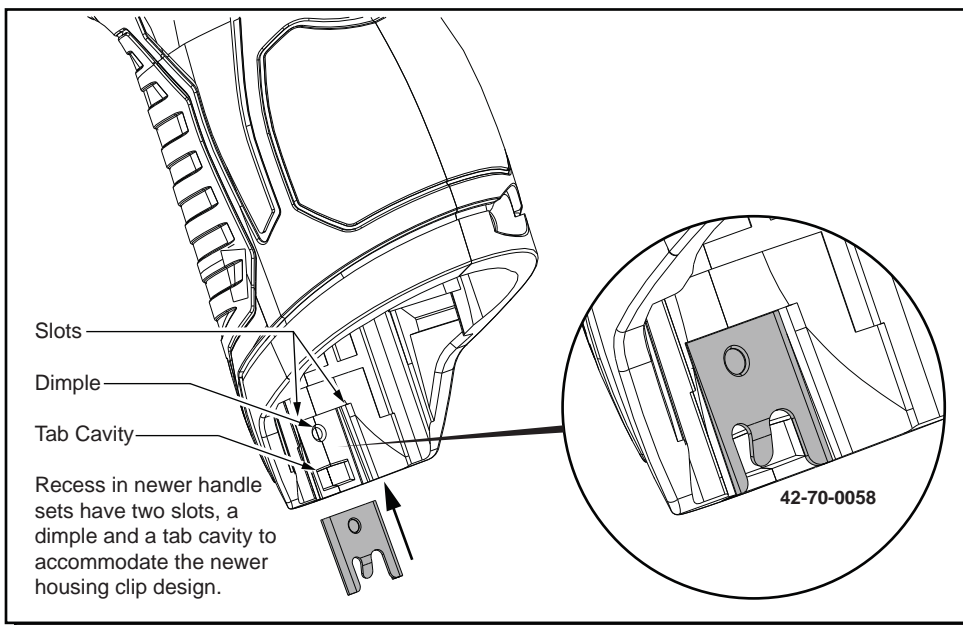
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
42	-----	Right Carriage Half	(1)
43	34-40-1900	O-Ring	(1)
44	-----	Cutter Head - Right	(1)
45	-----	C Plate	(1)
46	-----	M3 x 6 Screw	(2)
47	32-30-0155	Head Gear	(1)
48	05-80-0475	4-40 x 1/4" Flat Head Screw	(3)
49	-----	Axle Pin	(2)
50	-----	Idler Gear	(2)
51	-----	Drive Axle	(1)
52	-----	Drive Gear	(1)
53	-----	M3 Washer	(2)
54	31-44-0246	Handle Set	(1)
55	23-66-0875	Switch PCBA	(1)
56	14-50-0205	Motor Assembly	(1)
57	10-20-4420	Fuel Gauge Label	(1)
59	10-15-0955	Warning Label	(1)
60	-----	M2.6 x 5 Screw	(1)
61	43-44-0075	Gasket	(1)
62	14-29-0155	Gearcase Assembly	(1)
63	43-64-0285	Cutter Head Assembly	(1)
64	42-70-0500	E Clip	(1)
65	40-50-0525	Clutch Spring	(1)
66	40-50-0580	Carriage Spring	(1)
67	42-70-0525	E Clip	(1)
68	-----	Pin Pivot	(1)
69	42-70-0055	Housing Connection Clip	(1)
70	06-82-2385	M2.6 x 14 Screw	(3)
71	06-81-0005	M3.5 x 1.34 Screw	(4)
72	42-70-0550	E Clip	(2)
73	36-10-0840	Cam Shaft	(1)
74	05-81-0245	4-40 x 5/8" Phillips Hd. Screw	(3)
75	34-40-1905	O-Ring	(1)
76	32-30-0160	Head Gear Spacer	(1)
77	42-28-0075	Rubber Block	(1)
79	-----	Motor Mount	(1)
80	40-50-0605	Torsion Spring	(1)
82	43-72-0285	Roller Carriage Assembly	(1)
83	45-36-0205	Locking Plate Spacer	(1)
84	42-55-2471	Carrying Case, Optional	(1)



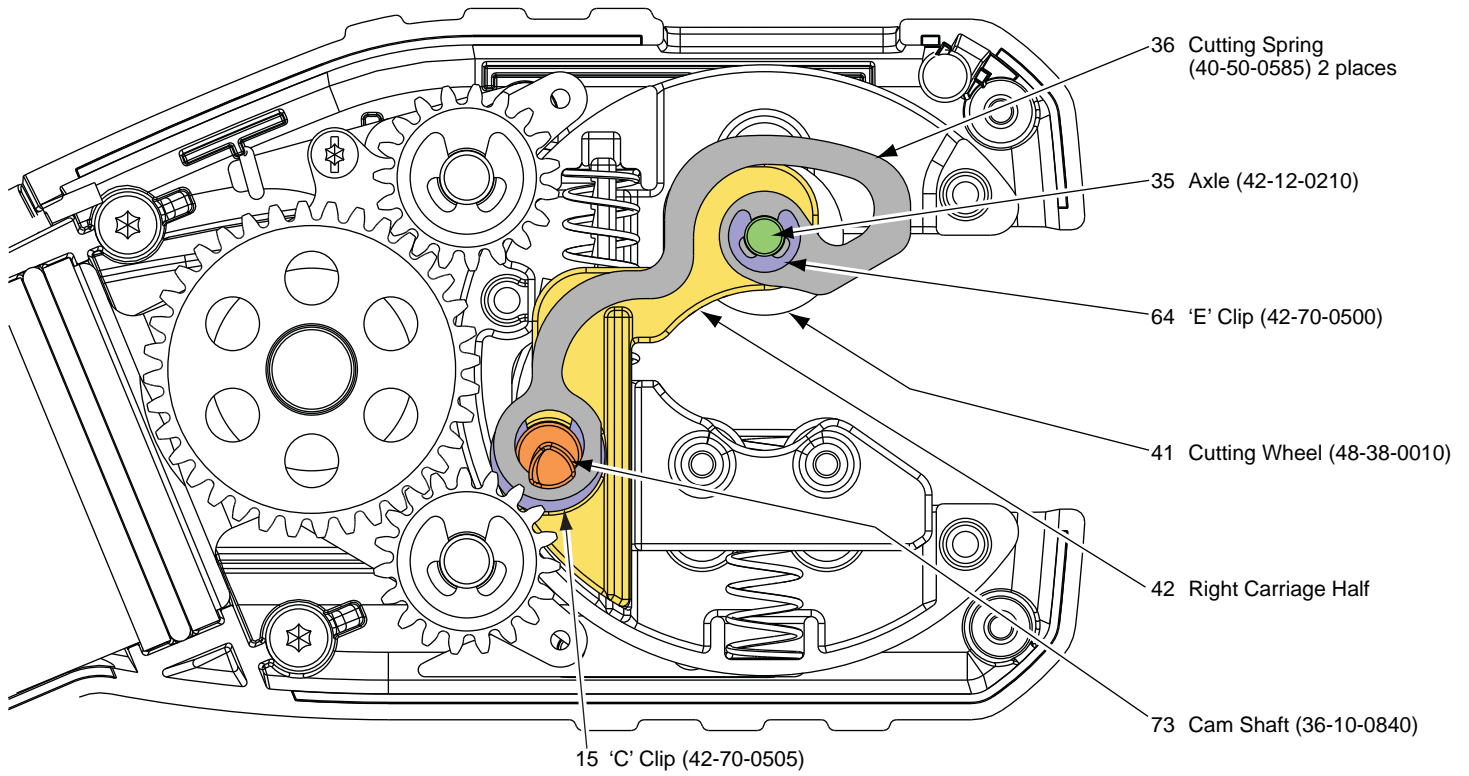
Early M12™ Handle Sets utilize **Housing Connection Clip No. 42-70-0055**. Install this clip design by aligning the side rails of the clip with the two slots in the handle set. Gently push into place with the aid of a small flat blade screwdriver or a similar instrument. Be sure that the clip is properly 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 42-70-0055 housing clip.



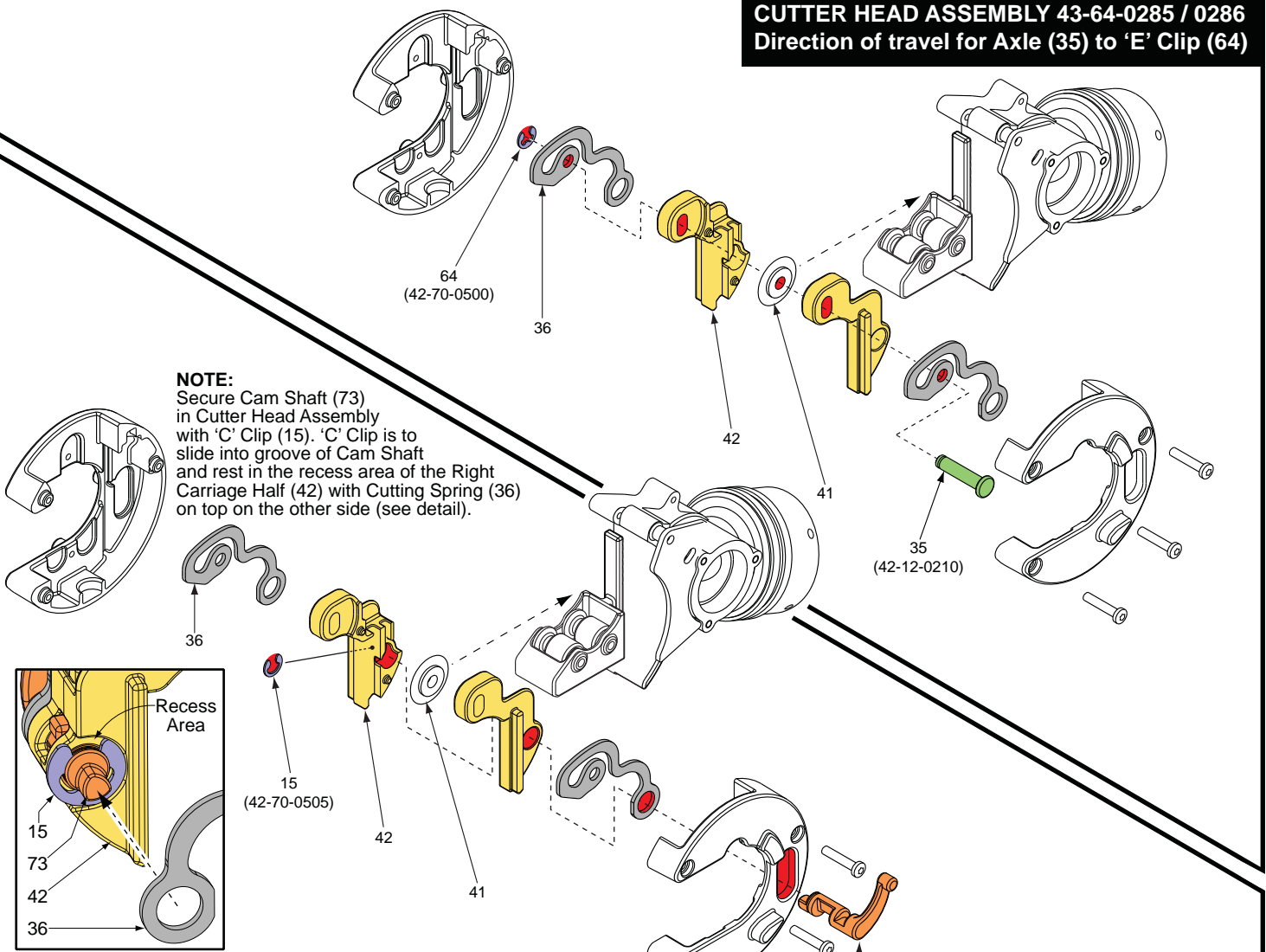
Updated M12™ Handle Sets utilize **Housing Connection Clips No. 42-70-0055 and 42-70-0058**. (The 42-70-0058 is a preferred upgrade). Install this clip design by aligning the side rails of the clip with the two slots in the handle set. Gently push into place with the aid of a small flat blade screwdriver 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 42-70-0058 clip.



Newer M12™ Handle Sets utilize **Housing Connection Clip No. 42-70-0058**. 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 42-70-0058 clip.



**CUTTER HEAD ASSEMBLY 43-64-0285 / 0286**  
 Direction of travel for Axle (35) to 'E' Clip (64)



**CUTTER HEAD ASSEMBLY 43-64-0285 / 0286**  
 Direction of travel for Cam Shaft (73) to 'C' Clip (15)

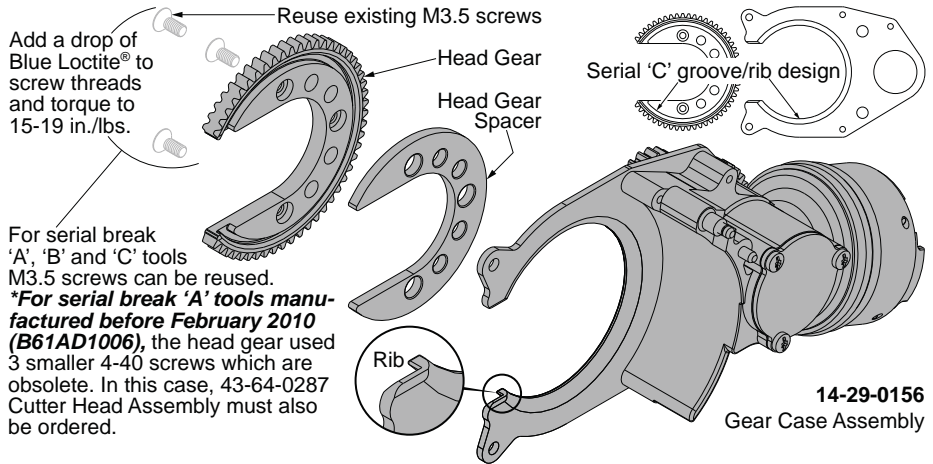
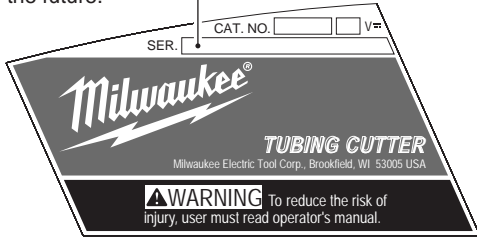


# 14-29-0156

## GEAR CASE ASSEMBLY

**NOTE:**

The installation of this service kit upgrades your 2471-XX, M12™ Copper Tubing Cutter to the latest serial break design. It is recommended to use a Sharpie or equivalent indelible marker to record **'B61C'** (for 2471-20) or **'D30B'** (for 2471-059) in the serial number box. This should be done to assure that the tool can be properly serviced in the future.



# 43-64-0287

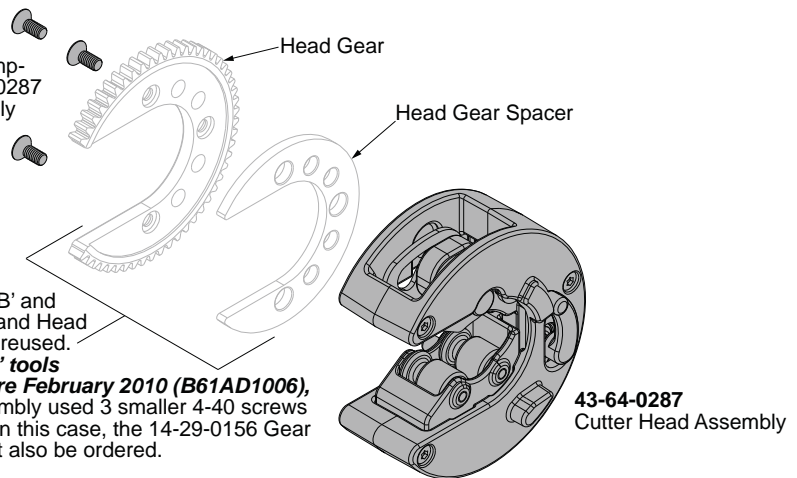
## CUTTER HEAD ASSEMBLY

**05-80-0476**

M3.5 screws are components of the 43-64-0287 Cutter Head Assembly

Torque screws to 15-19 in./lbs.

For serial break 'A', 'B' and 'C' tools Head Gear and Head Gear Spacer can be reused.  
**\*For serial break 'A' tools manufactured before February 2010 (B61AD1006), the cutter head assembly used 3 smaller 4-40 screws which are obsolete. In this case, the 14-29-0156 Gear Case Assembly must also be ordered.**



# 44-66-0826

## LOCKING PLATE KIT

**44-66-0825**  
Locking Plate

**44-66-0827**  
Locking Plate

**45-36-0205**  
Locking Plate Spacer

Indicator Mark

Regarding tool **2471-20** (w/ SN B61A & B61B) service replacement locking plate 44-66-0827 is slightly thicker than the original design and has an indicator mark as a differentiator. Both the old locking plate and old locking plate spacer must be discarded when installing the new plate!

**Kit 44-66-0826 Contains:**

- 1 44-66-0827 Locking Plate
- 1 58-22-2700 Instruction Sheet

**Which Replaces Parts:**

- 1 44-66-0825 Locking Plate
- 1 45-36-0205 Locking Plate Spacer

**DO NOT** attempt to reuse existing tool parts listed. Remove and Discard.

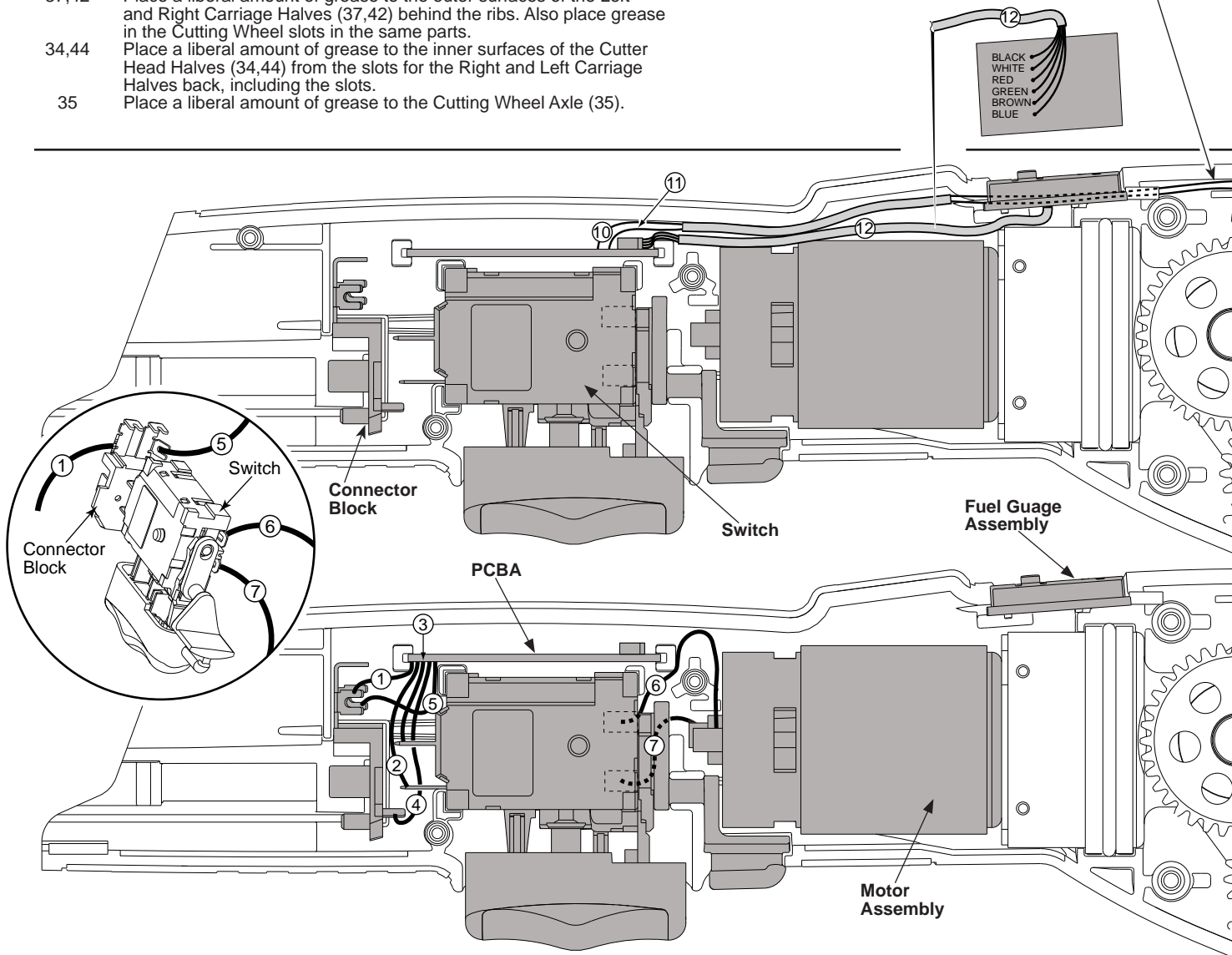
**FIG. LUBRICATION**

**(Type 'J' Grease, No. 49-08-4220):**

- 38,40 Apply a thin coat of grease to the I.D. of the Rollers (40). Both Rollers must spin freely in the Roller Carriage (38).
- 45,47,63 Grease should be applied liberally to the surfaces of the C-Plate (45) that contact the Cutter Head Assembly (63) and the Head Gear (47).
- 49,50,52 Grease should be applied liberally to the Idler Gear Axles (49), the teeth of the Idler Gears (50) and the teeth of the Drive Gear (52).
- 73 Place a liberal amount of grease to the body of the Cam Shaft (73).
- 23 Place a liberal amount of grease to the body of the Lifter (23).
- 38 Place a liberal amount of grease to the stem of Roller Carriage (38).
- 37,42 Place a liberal amount of grease to the outer surfaces of the Left and Right Carriage Halves (37,42) behind the ribs. Also place grease in the Cutting Wheel slots in the same parts.
- 34,44 Place a liberal amount of grease to the inner surfaces of the Cutter Head Halves (34,44) from the slots for the Right and Left Carriage Halves back, including the slots.
- 35 Place a liberal amount of grease to the Cutting Wheel Axle (35).

For **Service Replacement LED No. 23-28-0020**, splice into wires #10 and #11 from Switch Assembly. Follow instructions immediately below

**For the LED located in the front of the tool:** White wire #10 and red wire #11 are to be routed along the traps in the top of the Left Handle. Secure wires with a drop of RTV adhesive over the short trap and a drop of adhesive over the longer trap towards the front end close to the LED.



**WIRING SPECIFICATIONS**

Wire No.	Wire Color	Origin or Gauge	Length	Terminals, Connectors and 1 or 2 End Wire Preparation
1	Red	23-66-0875	-----	Component of the Switch Assembly.
2	White	23-66-0875	-----	Component of the Switch Assembly.
3	Blue	23-66-0875	-----	Component of the Switch Assembly.
4	White	23-66-0875	-----	Component of the Switch Assembly.
5	Black	23-66-0875	-----	Component of the Switch Assembly.
6	Red	14-50-0205	-----	Component of the Motor Assembly.
7	Black	14-50-0205	-----	Component of the Motor Assembly.
10	White	23-66-0875	-----	Component of the Switch Assembly.
11	Red	23-66-0875	-----	Component of the Switch Assembly.
12	Black	22-06-0130	-----	Component of the Fuel Gauge Assembly.
12	White	22-06-0130	-----	Component of the Fuel Gauge Assembly.
12	Red	22-06-0130	-----	Component of the Fuel Gauge Assembly.
12	Green	22-06-0130	-----	Component of the Fuel Gauge Assembly.
12	Brown	22-06-0130	-----	Component of the Fuel Gauge Assembly.
12	Blue	22-06-0130	-----	Component of the Fuel Gauge Assembly.

**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.**