

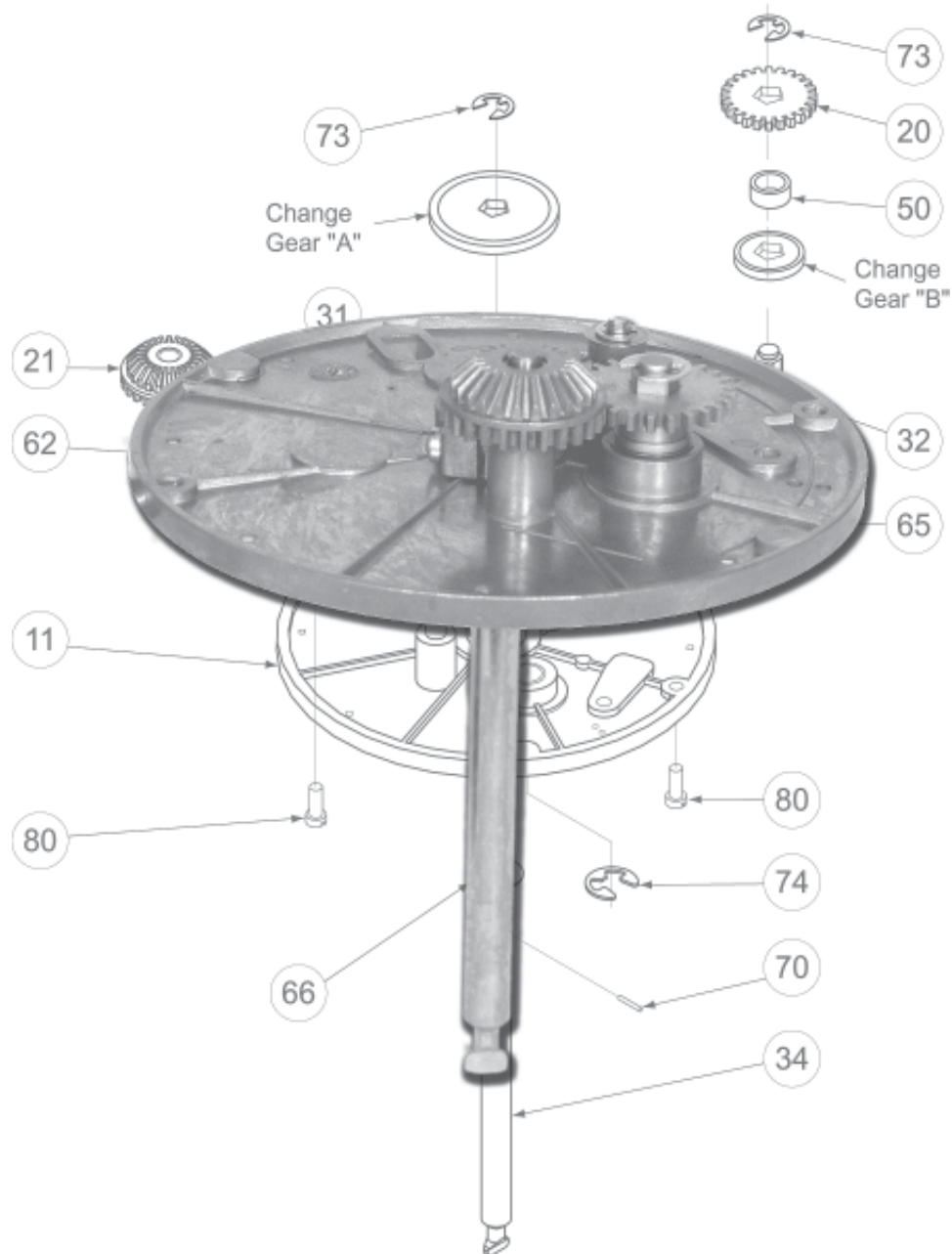


# Installation & Parts Manual

## Gear Plate Selection Guide

**LIQUID  
CONTROLS**  
A Unit of IDEX Corporation

**IDEX**  
IDEX CORPORATION



Installation: M100-30

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# Gear Plate Selection Guide

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Gear plates are used to convert a meter's output to the desired unit of measure; for example, 1/10 or whole US gallons, 1/10 or whole imperial gallons, liters, cubic meters, barrels, pounds, etc. To facilitate the changing of the unit of measure desired, the gear plate is attached to the base of the large numeral counter with two screws. To make proper gear plate selection, you will need to know:

1. Meter size
2. Unit of measure required
3. Packing gland ratio
4. Meter register stack components (preset, TVC, counter, ticket printer, etc.)

## General Meter Data

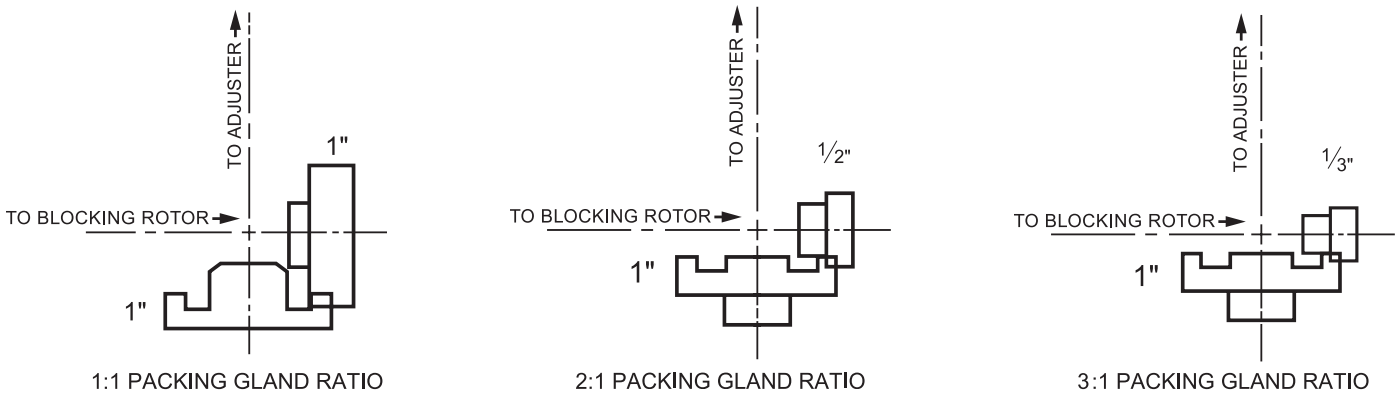
- M-5, M-7, and M-10 meters supplied standard with 1/10 gallon, Pattern 10 gear plates.
- M-15 and M-25 meters supplied standard with 1/10 gallon, Pattern 20 gear plates.
- M-25, M-30, M-40, M-60, and M-80 meters supplied standard with Whole Gallon, Pattern 10 gear plates.
- When deviating from above standards, see appropriate meter price list for correct pricing.
- Any meter model incorporating a Temperature Volume Compensator requires an even centered gear plate (Pattern 10, 30, or 50).
- Meter models supplied with Class 10 and 12 construction are configured using a Pattern 30 gear plate.
- Consult Customer Support Department at the factory for gear plate ratios not listed on pages 15 through 23.

Meter Size	Revolutions per gallon of the blocking rotor	Meter Size	Revolutions per gallon of the blocking rotor
M-5 (New Style) -----	4.0790	MS-5 -----	12.2370
M-5 (Old Style) -----	12.2370	MS-7 -----	5.555
M-7 -----	5.555	MS-15 -----	2.058
M-10 -----	5.555	MS-25 -----	2.058
M-15 -----	2.058	MS-30 -----	0.742
M-20* -----	2.058	MS-40 -----	0.742
M-25 -----	2.058	MS-75 -----	0.2545
M-30 -----	0.742	MS-120 -----	0.1579
M-40 -----	0.742		
M-60 (New Style) -----	0.3983		
M-60 (Old Style) -----	0.2545		
M-70 -----	0.4024		
M-80 -----	0.3983		
M-120 -----	0.1579		

\*M-20 meter uses only 2:1 packing glands. Consult Customer Service Department at the factory for proper gear plates.

# Packing Gland Ratio

Three packing gland ratios are available to permit achieving the proper RPM of the register unit wheel (right hand wheel).

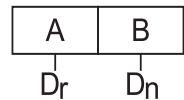


## Pattern Codes

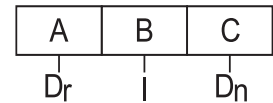
The Pattern Code number diagram shows five general gear assembly configurations that can be constructed using the basic gear plate and swing arm assemblies. Patterns 10, 30, and 50 can be used with a mechanical temperature compensator.

**$D_r$ =Driving gear,  $D_n$ =Driven gear, I=Idler gear**

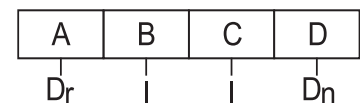
**Pattern 10** - shows the simplest gear plate form with a driver and a driven gear. Total teeth of gear A plus gear B must equal 118. ( $A=D_r$ ,  $B=D_n$ )



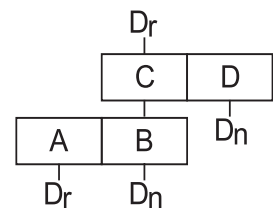
**Pattern 20** - shows the simple gear plate form with an idler gear added to reverse output rotation. Do not use when a mechanical temperature compensator is used. ( $A=D_r$ ,  $B=I$ ,  $C=D_n$ )



**Pattern 30** - shows a plate with dual idler gears. This pattern is used when a Temperature Volume Compensator (TVC) is part of the register stack. When the register stack includes a TVC, you must have an even number of centers in the gear plate. When looking down on the Adjuster, rotation should be counterclockwise. ( $A=D_r$ ,  $B=I$ ,  $C=I$ ,  $D=D_n$ )

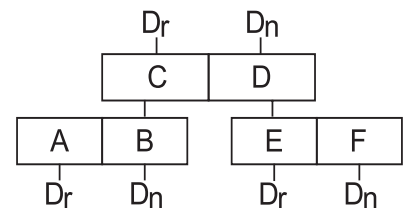


**Pattern 40** - shows a plate with a compound gear set (B/C). Do not use when a mechanical temperature compensator is used.



**Pattern 50** - shows a plate with dual compound gears (B/C) and (D/E). This gear plate configuration is used:

- When a TVC is part of the register stack, when the register stack includes a TVC, you must have an even number of centers in the gear plate; when looking down on the Adjuster, rotation should be counterclockwise.
- When you cannot obtain the desired ratio with only two sets of gears.



## Gear Limitations

- Adjuster Reduction: 3.997:1 at 25% setting.
- Two Gear Ratio Capacity: Pattern 10 must equal 118 total teeth.
- Idler Arm Capacity: Patterns 20, 30, 40, & 50: 114 teeth maximum, 72 teeth minimum.

$$\frac{C - D}{A - B} \times \frac{E - F}{A} \times \frac{D}{C} \times \frac{F}{E} = \text{Ratio}$$

Typical Six Gear Ratio - Pattern 50

A+B equal to or greater than 72 teeth.  
 A+B equal to or less than 114 teeth.  
 E+F equal to or greater than 72 teeth.  
 E+F equal to or less than 114 teeth.

B+E+5 teeth equal to or less than C+D.  
 C+26 teeth equal to or less than A+B.  
 D+26 teeth equal to or less than E+F.

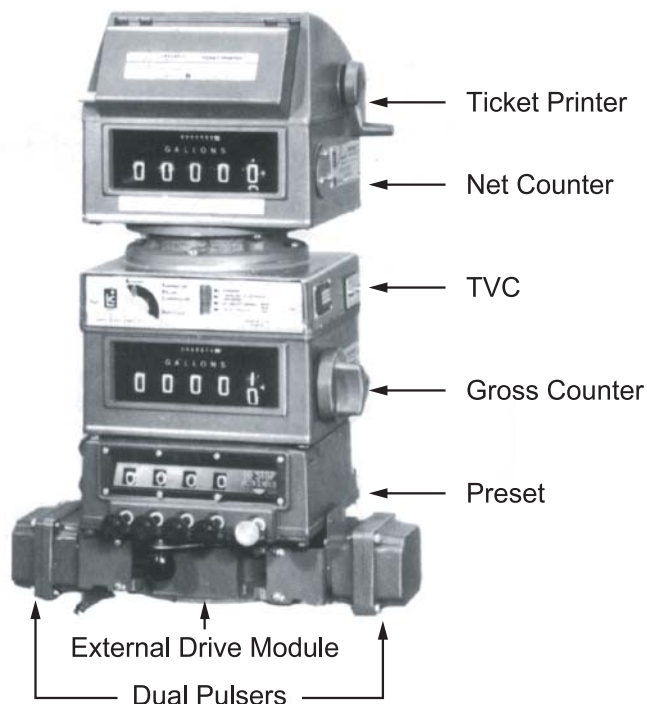
A+F equal to or less than 113 teeth.  
 A+F equal to 118 teeth on two gear ratio.

## Available Gears

Standard gears range from 30 to 69 teeth inclusive. Other gears available are listed below.

No. of Teeth	Part Number
19	V-2324
20	V-6180
26	V-6190
28	V-2328
29	V-2332
59	V-2452
59 (60T. P.D.)	V-2454
69	V-2492
69 (70T. P.D.)	V-4572
70	V-2496
72	V-2500
75	V-2504
76	V-2508
78	V-2512
80	V-2516
84	V-2520
90	V-2524

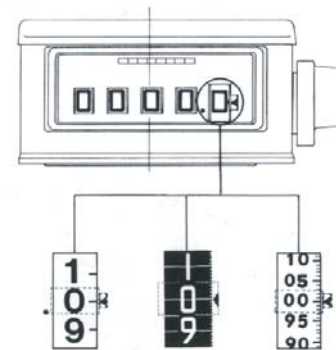
## Register Stack Components



## Units per Revolution

The right hand wheel of the register determines the unit of measure.

**NOTE:** the right hand register wheel (units wheel) must not exceed 250 revolutions per minute (RPM) or 125 RPM when the meter is equipped with a preset. There are three packing glands available to achieve the proper RPM. 1:1, 2:1, or 3:1.



1/10 Units Wheel or 1 Unit/Rev. with Decimal Point      Whole Unit Wheel or 10 Units/Rev. No Decimal Point      1 Barrel Wheel or 1 Unit/Rev. or 100 Units/Rev.

# Formulas for Computing Gear Plate Ratios

$$\frac{N_b \times R_c}{P_g \times W \times R_a} = R_1 \quad R_2 = \frac{D_n}{D_r}$$

1.  $N_b$  = Revolutions per gallon of the blocking rotor.

Meter Model	$N_b$ Value
M-5 (old style) -----	4.0790
M-5 (new style) -----	12.2370
MS-5 -----	12.2370
M-7 -----	5.555
MS-7 -----	5.555
M-10 -----	5.555
M-15 -----	2.058
MS-15 -----	2.058
*M-20 -----	2.058
M-25 -----	2.058
M-30 -----	0.742
MS-30 -----	0.742
M-40 -----	0.742
M-60 (new style) -----	0.3983
M-60 (old style) -----	0.2545
M-70 -----	0.4024
MS-75 -----	0.2545
M-120 -----	0.1579
MS-120 -----	0.1579

\*M-20 uses only 2:1 packing glands. Consult the Customer Service Department at the factory for proper gear plate selection.

2.  $R_c$  = Number of units per revolution of the right-hand wheel of the counter. For a counter to read in 10th gallons, the unit per revolution of the right-hand wheel is 1 gallon. For a counter to read in pounds, the unit per revolution of the right-hand wheel is 10 pounds. Refer to the units per revolution on page 5.

3.  $P_g$  = Packing gland ratio; 1:1, 2:1, or 3:1.

4.  $W$  = Units per gallon. For example; pounds per gallon or kilograms per gallon. If the counter reads in gallons, this value is 1.

5.  $R_a$  = Adjuster ratio = 3.997.

6.  $R_1$  = Gear plate ration desired.

7.  $R_2$  =  $D_n$  divided by  $D_r$ , which is the actual ratio.

8.  $D_n$  = Driven gear.

9.  $D_r$  = Driving gear

10. For 20% correction, multiply the gear plate ratio,  $R_1$ , by .98 as in the following example:

$$\frac{N_b \times R_c \times .98}{P_g \times W \times R_a} = R_1$$

11. The % difference of the actual ratio ( $R_2$ ) cannot be greater than or less than 1% of the desired ratio.

$$\Delta R = \frac{100 (R_1 - R_2)}{R_1} = \% \text{ difference in ratios}$$

**NOTE:** To convert specific gravity to pounds, use the following example.

For a specific gravity of 0.893:

$$0.893 \times 8.3453 = 7.452 \text{ pounds per gallon.}$$

Water weighs 8.3453 pounds per gallon and has a specific gravity of 1.000.

# Formulas for Computing Gear Plate Ratios

## Examples

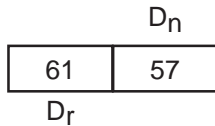
**Example 1:** Find a gear plate ratio for 7.50 pounds per gallon.

Meter Model: ----- M7-A  
 Unit of Measure: ----- pounds per gallon  
 Packing Gland Ratio: -- 2:1  
 Units per Gallons: ----- 7.50  
 Adjuster Ratio: ----- 3.997

$$\frac{N_b \times R_c}{P_g \times W \times R_a} = R_1 \quad R_2 = \frac{D_n}{D_r}$$

$$\frac{5.555 \times 10}{2 \times 7.50 \times 3.997} = R_1 = .9265$$

$$R_2 = \frac{D_n}{D_r} = \frac{57}{61} = .9344$$



$$\Delta R = \frac{100 (R_1 - R_2)}{R_1} = \frac{100 (.9265 - .9344)}{.9265} = .85\%$$

**Example 2:** Find a gear plate ratio for Imperial Gallons at 2% correction.

Meter Model: ----- M7-A  
 Unit of Measure: ----- whole imperial gallons  
 Correction Factor ----- (2%) .98  
 Packing Gland Ratio: -- 2:1  
 Units per Gallons: ----- .83267 Imperial Gallons per US Gallon  
 Adjuster Ratio: ----- 3.997

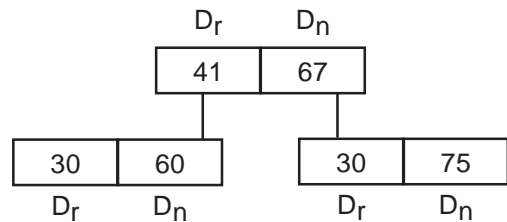
$$\frac{N_b \times R_c \times .98}{P_g \times W \times R_a} = R_1 \quad R_2 = \frac{D_n}{D_r}$$

$$\frac{5.555 \times 10 \times .98}{2 \times .83267 \times 3.997} = R_1 = 8.1785$$

$$R_2 = \frac{D_n}{D_r} \times \frac{D_n}{D_r} \times \frac{D_n}{D_r}$$

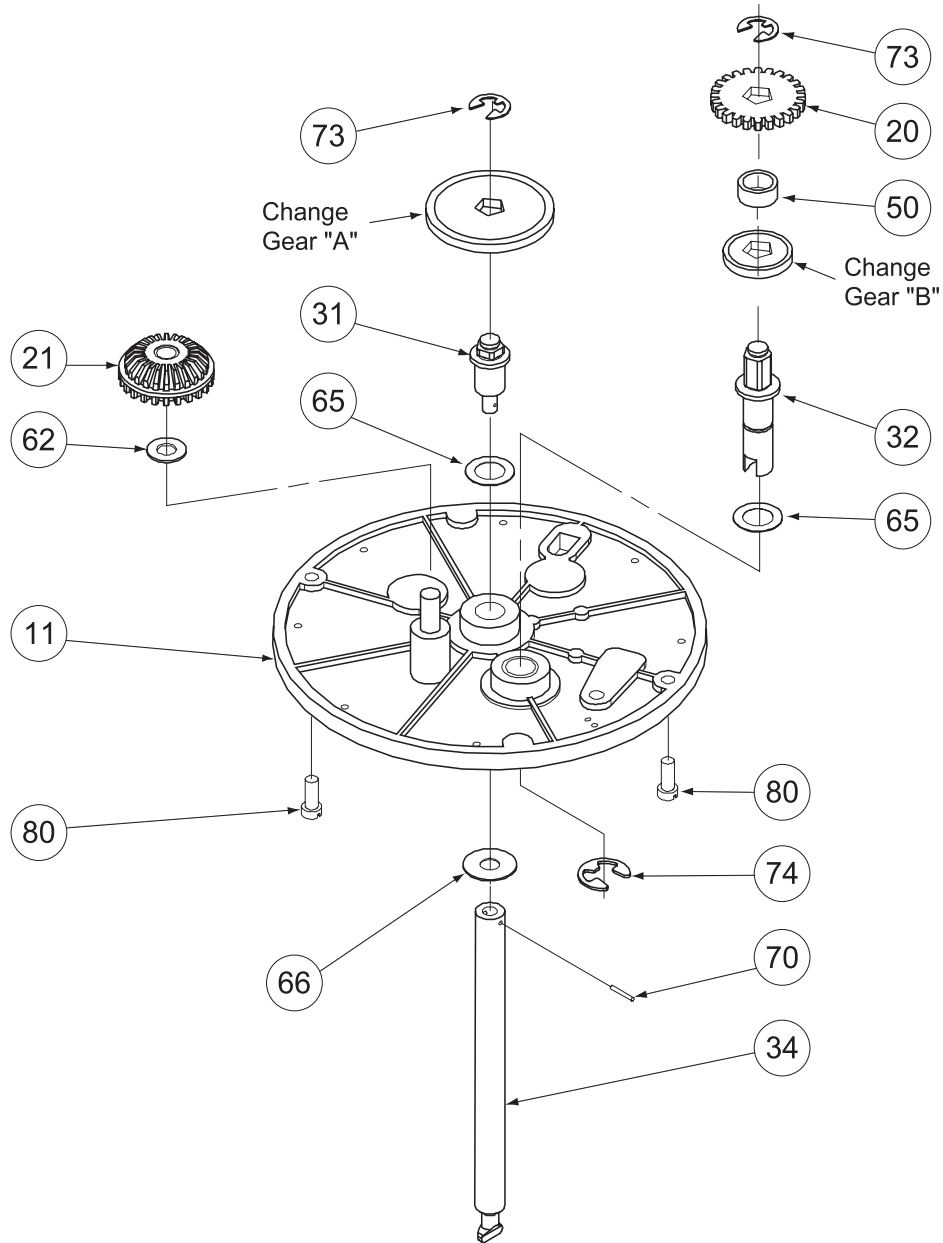
$$R_2 = \frac{60}{30} \times \frac{67}{41} \times \frac{75}{30} = 8.1707$$

$$\Delta R = \frac{100 (R_1 - R_2)}{R_1} = \frac{100 (8.1785 - 8.1707)}{8.1785} = .095\%$$



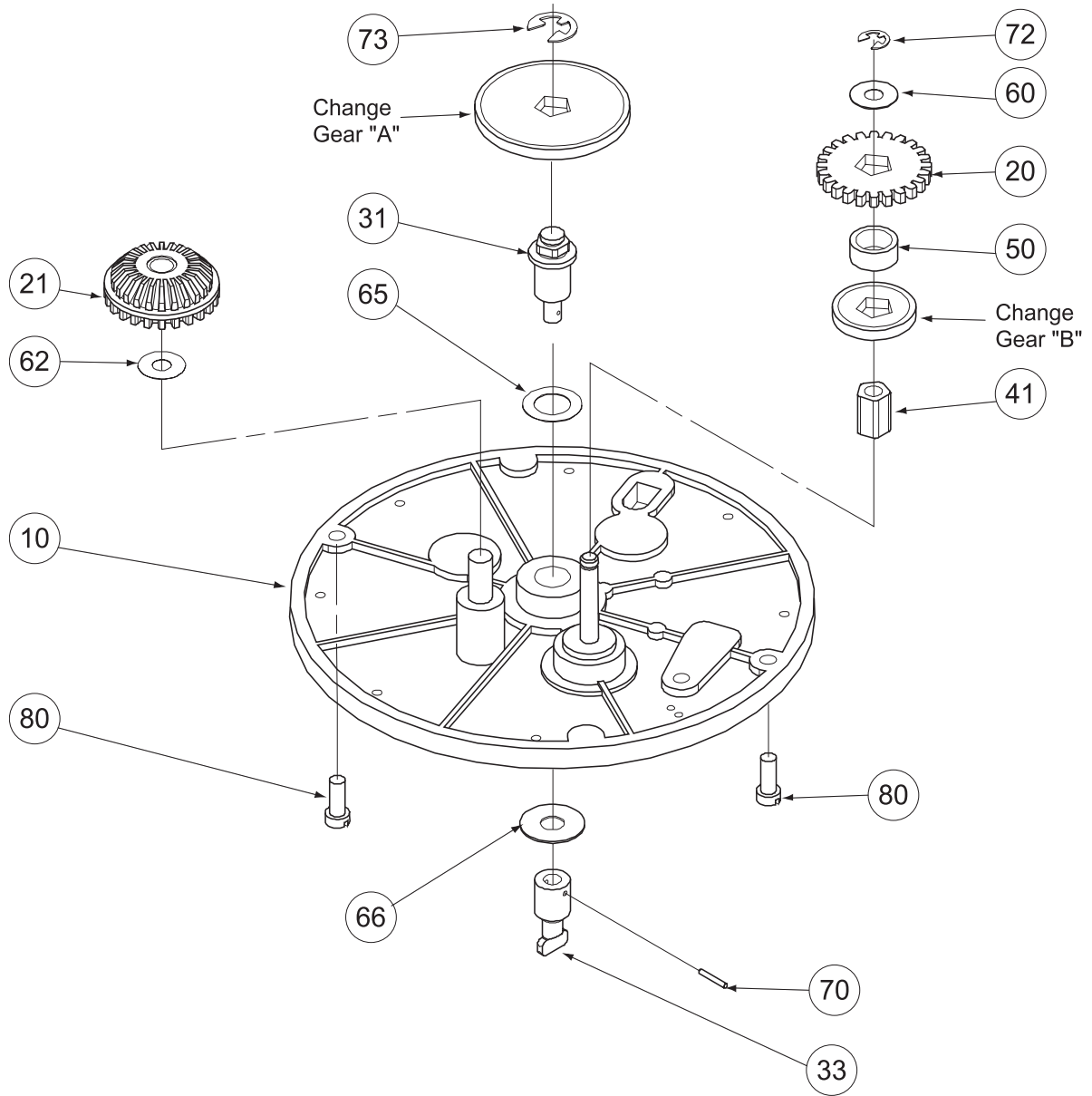
# Gear Plate Assemblies

## Pattern 10, Long Shaft (LC Preset)



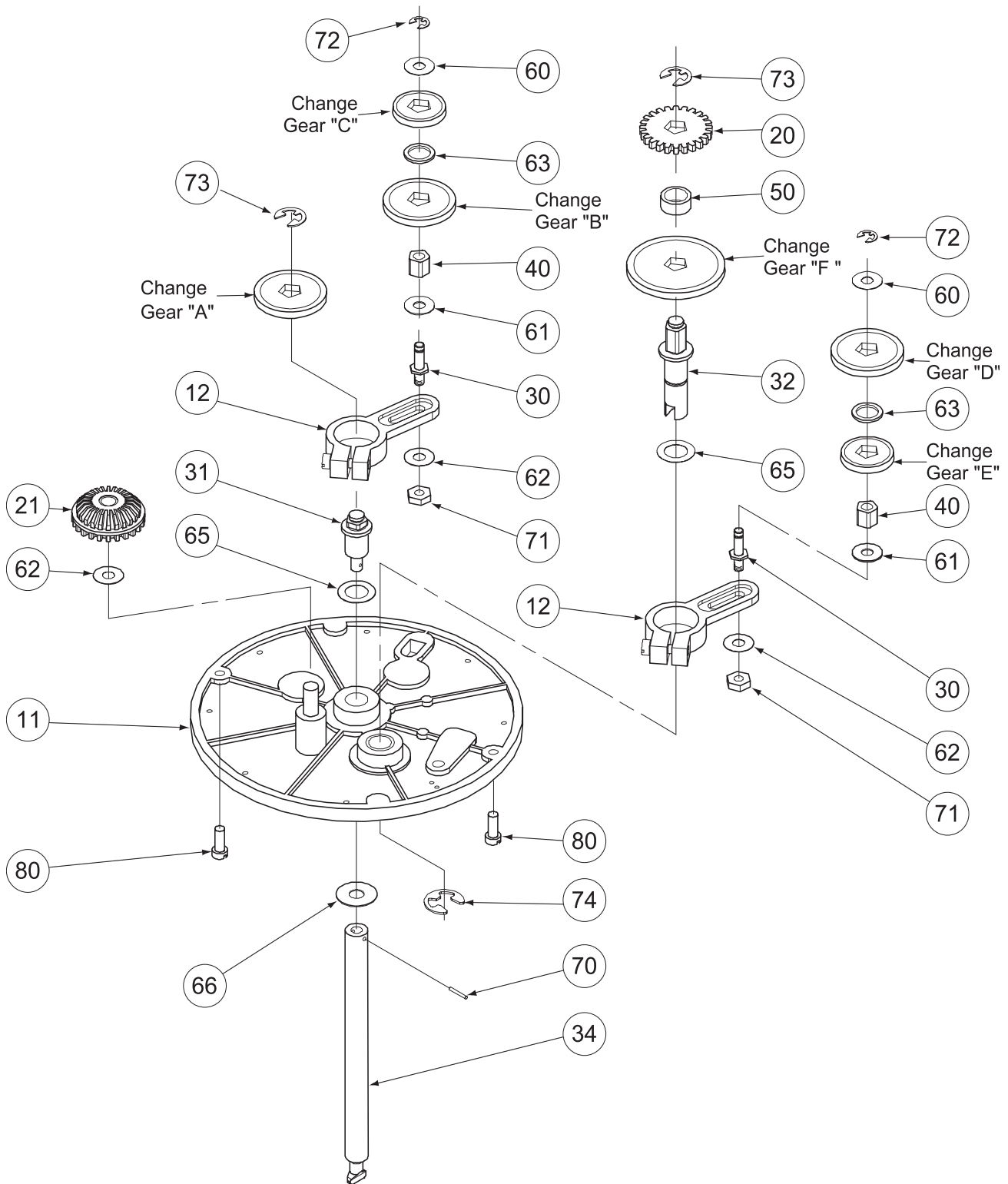


## Pattern 10, Short Shaft



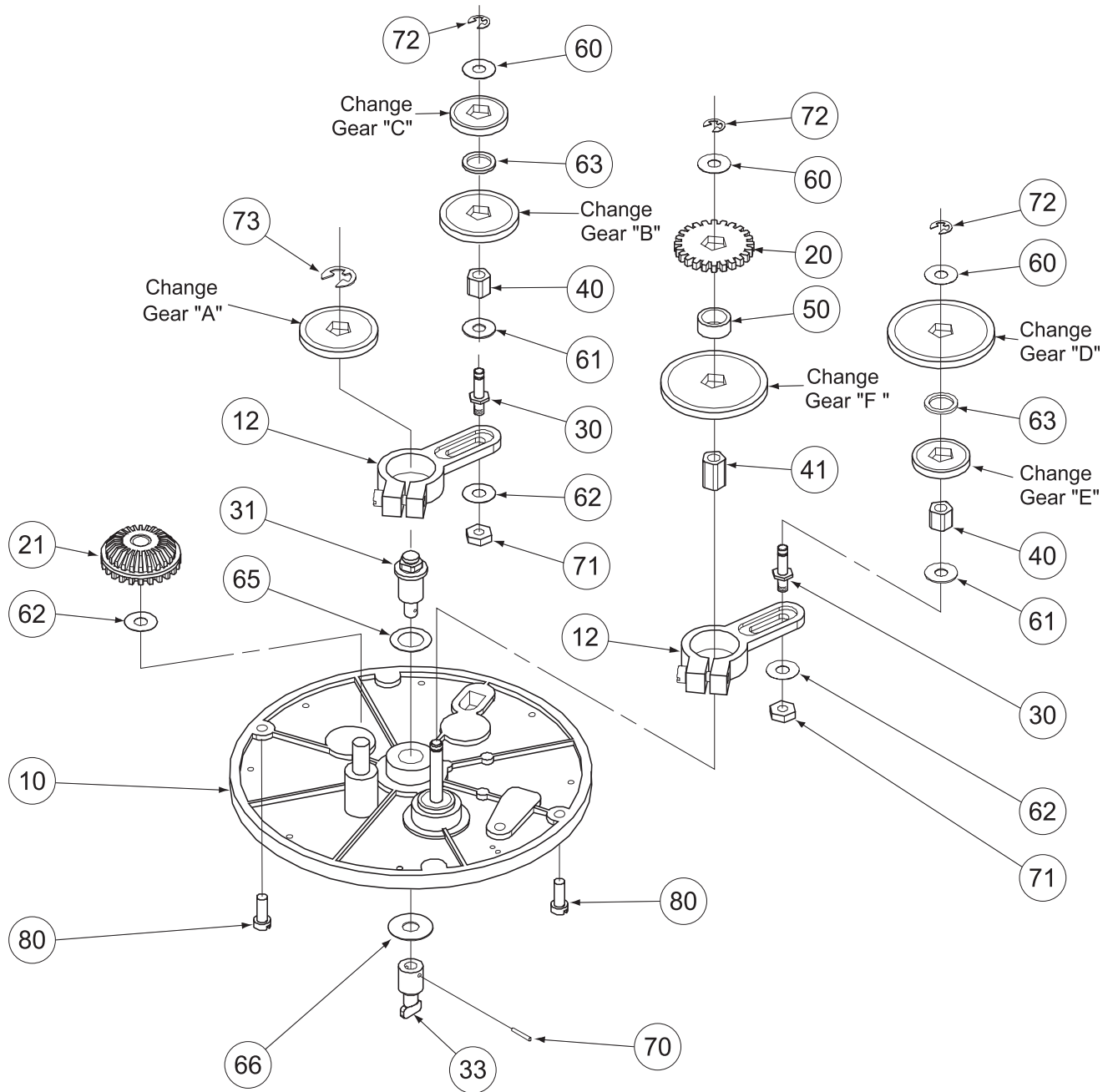
# Gear Plate Assemblies

## Patterns 20, 30, 40, & 50 Long Shaft (LC Preset)



# Gear Plate Assemblies

## Patterns 20, 30, 40, & 50 Short Shaft



# Parts List

## Gear Plate Assemblies:

Patterns 10, 20, 30, 40, & 50

<u>Item No.</u>	<u>Description</u>	<u>Part No.</u>
10	Gear Plate, Short Shaft	
11	Gear Plate, Long Shaft	
20	25 Tooth Gear	V-4176
21	25 Tooth Bevel Gear	V-4180G
31	Drive Shaft	V-4000
32	Preset Drive Coupling	40175
33	Register Drive Coupling (short shaft)	43762
34	Register Drive Coupling w/Preset (long shaft)	73763
41	Bushing	V-2548
50	Spacer	V-1315
60	Washer	V-1025
62	Washer	V-1095
65	Washer	V-1165
66	Washer	V-1175
70	Groove Pin	6915
72	E-Ring	V7475
73	E-ring	SP-4377
80	Screw	960152

Change Gear "A"	A/R
Change Gear "B"	A/R
Change Gear "C"	A/R
Change Gear "D"	A/R
Change Gear "E"	A/R
Change Gear "F"	A/R

## Gear Plate Assemblies:

Pattern 20, 30, 40, & 50

<u>Item No.</u>	<u>Description</u>	<u>Part No.</u>
12	Swing Arm Assy	V25365
30	Stud	6979
40	Bushing	V-2544
60	Washer	V-1025
61	Washer	V-1040
62	Washer	V-1050
63	Washer (.045)	V-1065
72	E-ring	V-7475
71	Nut	V-7450

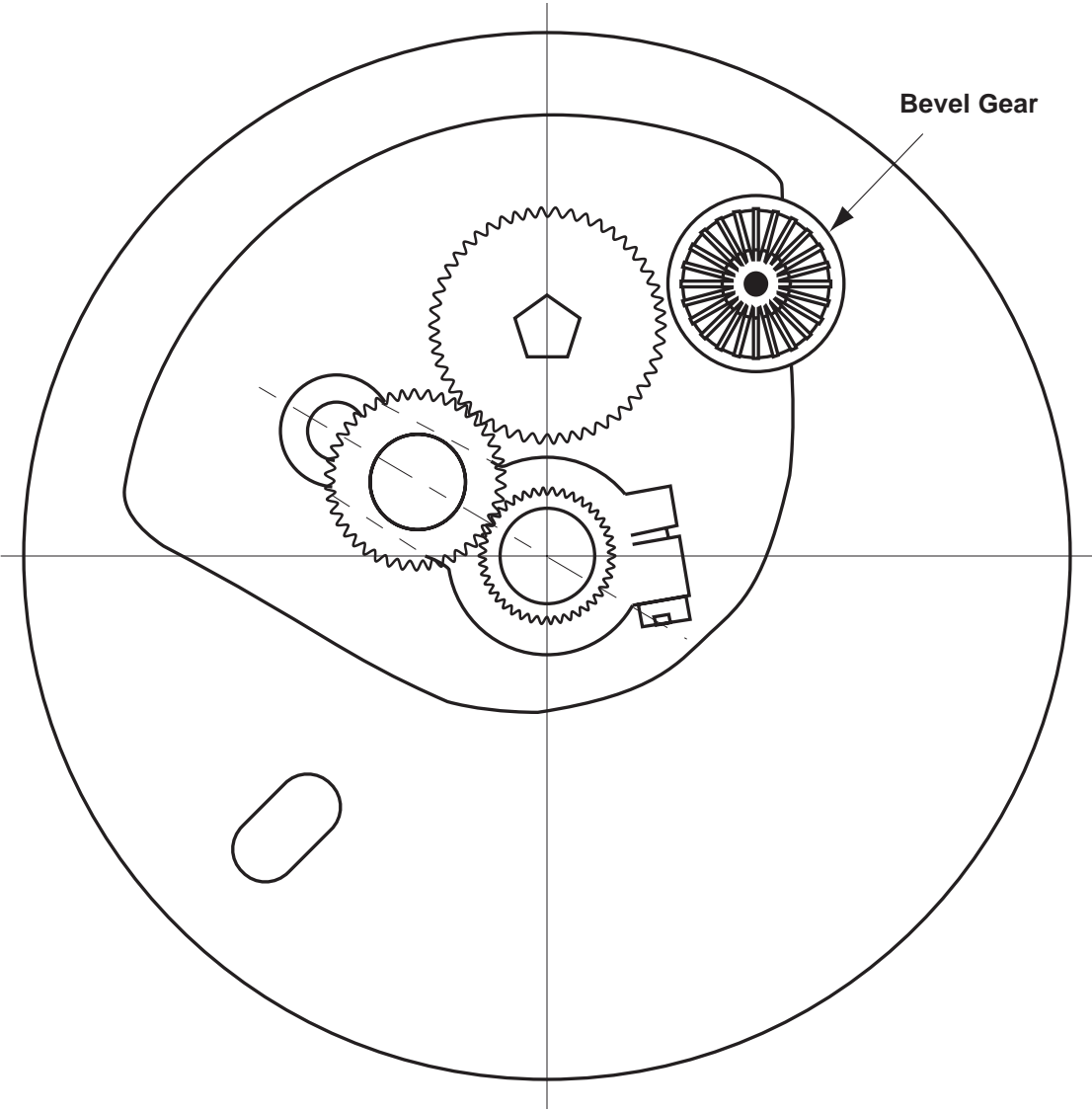
## Basic Gear Plate Part Numbers for Pattern Styles:

<u>Pattern Number</u>	<u>Basic Gear Plate for Register</u>	<u>Basic Gear Plate for Preset and Register</u>
10	41225	41227
20	41226	41227
30	49912	49913
40	41229	41224
50	44456	44455

## Change Gear Part Numbers:

<u>No.</u>	<u>Part No.</u>	<u>No.</u>	<u>Part No.</u>
19	V-2324	53	V-2428
20	V-6180	54	V-2432
26	V-6190	55	V-2436
28	V-2328	56	V-2440
		57	V-2444
30	V-2336	58	V-2448
31	V-2340	59	V-2452
32	V-2344	59	V-2454
33	V-2348		(expanded)
34	V-2352	60	V-2456
35	V-2356	61	V-2460
36	V-2360	62	V-2464
37	V-2364	63	V-2468
38	V-2368	64	V-2472
39	V-2372	65	V-2476
		66	V-2480
40	V-2376	67	V-2484
41	V-2380	68	V-2488
42	V-2384	69	V-2492
43	V-2388	69	V-4572
44	V-2392		(expanded)
45	V-2396	70	V-2496
46	V-2400	72	V-2500
47	V-2404	75	V-2504
48	V-2408	76	V-2508
49	V-2412	78	V-2512
50	V-2416	80	V-2516
51	V-2420	84	V-2520
52	V-2424	90	V-2524

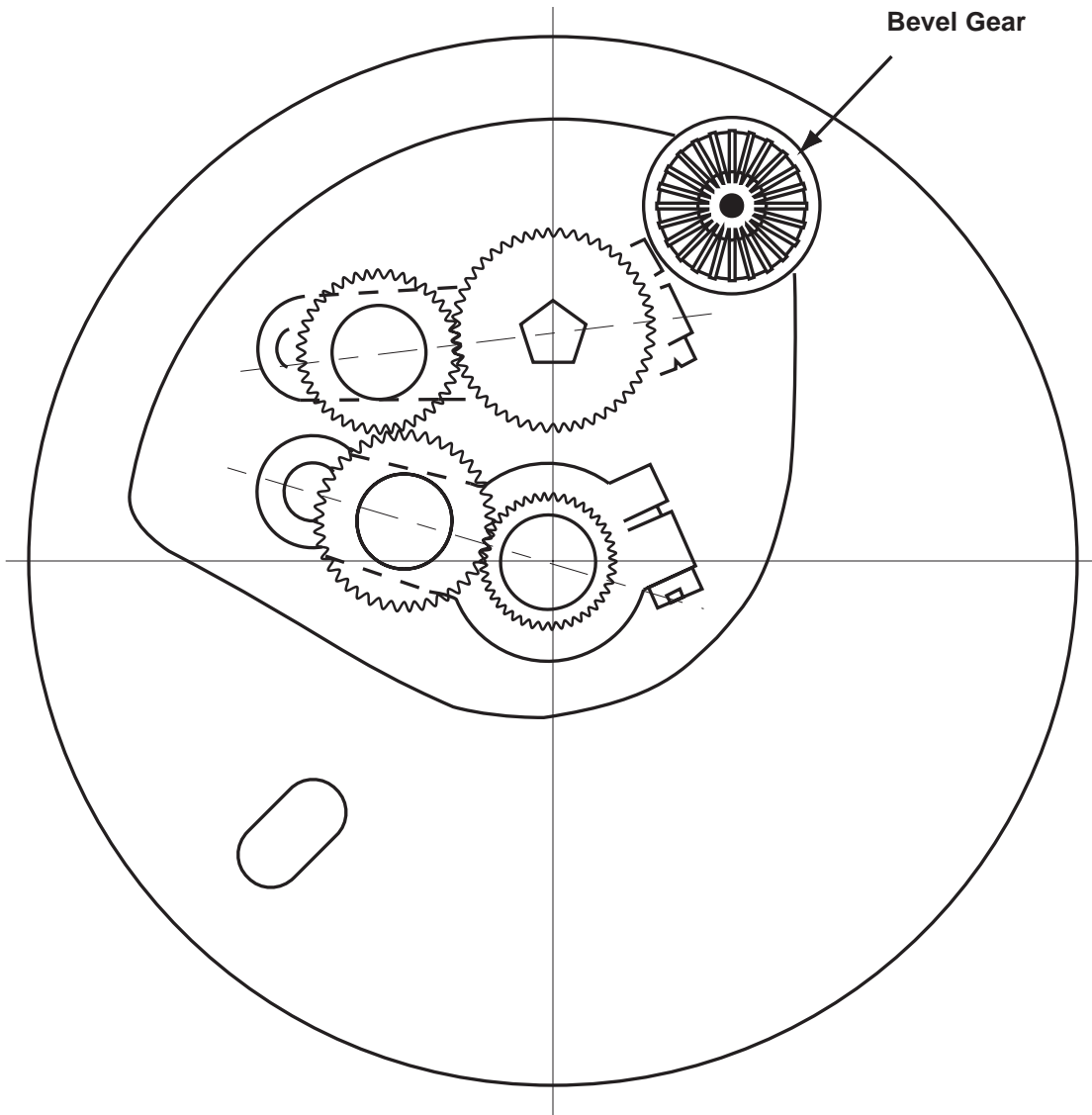
Pattern 20 & 40 (1 Swing Arm)



# Swing Arm Assemblies

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## Pattern 30 & 50 (2 Swing Arms)



## Gear Plates by Meter Size & Unit of Measure

Meter Model	Unit of Measure	Gear Plate Number	P/G ratio
<b>M5</b>	US Gallon	G1103	2:1
	1/10 US Gallon	G1125-59 tooth expanded	3:1
	Imp. Gallon	G1150	2:1
	1/10 Imp. Gallon	G1165	3:1
	Liters/Gallons	G1620	2:1
<b>MA4</b> <b>MA5</b>	1/10 US Gallon	G1127	1:1
<b>M7</b> <b>MS7</b>	US Gallon	G2112	2:1
	1/10 US Gallon	G2132-69 tooth expanded	2:1
	Liters/Gallons	G2681	2:1
	Imp. Gallon	G2156	2:1
	1/10 Imp. Gallon	G2166	2:1
<b>MA7</b>	1/10 US Gallon	G2146	1:1
<b>M15</b> <b>MS15</b> <b>MA15</b> <b>M25</b>	US Gallon	G3126	2:1
	1/10 US Gallon	G3161	1:1
	Liters/Gallons	G3517	1:1
	Imp. Gallon	G3214	2:1
	Barrels	G3646	2:1
<b>M30</b> <b>MS30</b> <b>M40</b>	US Gallon	G4121	2:1
	Imp. Gallon	G4211	2:1
	Liters/Gallon	G4410	1:1
	Dekaliters	G4470	2:1
	42 Gallon Barrel	G4510	2:1
<b>M60 (NEW)</b> <b>M80</b>	US Gallon	G6120	1:1
	Imp. Gallon	G6220	1:1
	Dekaliters	G6410	1:1
<b>M60 (OLD)</b> <b>MS75</b>	US Gallon	G5110	1:1
	Imp. Gallon	G5211	1:1
	Dekaliters	G5411	1:1
	42 Gallon Barrel	G5510	1:1
<b>MS120</b>	US Gallon	G7110	1:1
	Imp. Gallon	G7210	1:1
	Dekaliters	G7270	1:1
	42 Gallon Barrel	G7300	1:1

# M-5 Gear Plate Listing

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	Low					Min	Max			
G1101	US Gal	10			Preset/TVC	5.0988	Class 8 ONLY	2:1	5.0479	5.1497	0.1961	50	31-70-55-55-31-70
G1102	US Gal	10			TVC	5.0988	Class 8 ONLY	2:1	5.0479	5.1497	0.1961	50	31-70-55-55-31-70
G1103	US Gal	10				5.0988	Class 8 ONLY	2:1	5.0479	5.1497	0.1961	40	31-70-31-70
G1104	US Gal	10			Preset	5.0988	Class 8 ONLY	2:1	5.0479	5.1497	0.1961	40	31-70-31-70
G1106	US Gal	10				4.9805	2% - Class 8 ONLY	2:1	4.9307	5.0303	0.2008	40	32-68-32-75
G1107	US Gal	10			Preset	4.9805	2% - Class 8 ONLY	2:1	4.9307	5.0303	0.2008	40	32-68-32-75
G1113	US Gal	10			TVC	15.3198	Direct Drive ONLY	2:1	15.1666	15.4729	0.0653	50	28-59-28-75-28-76
G1114	US Gal	10			Preset/TVC	15.3198	Direct Drive ONLY	2:1	15.1666	15.4729	0.0653	50	28-59-28-75-28-76
G1115	US Gal	10			TVC	15.0000	2% - Direct Drive ONLY	2:1	14.8500	15.1500	0.0667	50	28-76-38-70-26-78
G1116	US Gal	10			Preset/TVC	15.0000	2% - Direct Drive ONLY	2:1	14.8500	15.1500	0.0667	50	28-76-38-70-26-78
G1124	1/10 US Gal	1			Preset/TVC	1.0172		3:1*	1.0071	1.0273	0.9831	10	58-59
G1125	1/10 US Gal	1			TVC	1.0172		3:1*	1.0071	1.0273	0.9831	10	58-59
G1126	1/10 US Gal	1			Preset/TVC	1.0000	2%	3:1*	0.9900	1.0100	1.0000	10	59-59
G1127	1/10 US Gal	1			TVC	1.0000	2%	3:1*	0.9900	1.0100	1.0000	10	59-59
G1150	IMP Gal	10				6.1290	Class 8 ONLY	2:1	6.0678	6.1902	0.1631	40	30-75-31-76
G1152	IMP Gal	10				6.0067	2% - Class 8 ONLY	2:1	5.9467	6.0667	0.1665	40	28-69-32-78
G1153	IMP Gal	10			TVC	18.3933	Direct Drive ONLY	2:1	18.2093	18.5772	0.0544	50	28-72-34-64-20-76
G1154	IMP Gal	10			TVC	18.0000	2% - Direct Drive ONLY	2:1	17.8200	18.1800	0.0556	50	30-60-26-78-26-78
G1164	1/10 IMP Gal	1			TVC	1.2264		3:1*	1.2142	1.2386	0.8154	10	53-65
G1166	1/10 IMP Gal	1				1.2000	2%	3:1*	1.1800	1.2120	0.8333	20	40-40-48
G1167	1/10 IMP Gal	1			TVC	1.2000	2%	3:1*	1.1800	1.2120	0.8333	30	40-40-40-48
G1172	1/10 IMP Gal	1			Preset/TVC	1.2264		3:1*	1.2142	1.2386	0.8154	10	53-65
G1173	1/10 IMP Gal	1			Preset	1.2000	2%	3:1*	1.1800	1.2120	0.8333	20	40-40-48
G1174	1/10 IMP Gal	1			Preset/TVC	1.2000	2%	3:1*	1.1800	1.2120	0.8333	30	40-40-40-48
G1281	KG/Gal	10	3.823	3.748	Preset	1.3191	2% - Class 8 ONLY	2:1	1.3060	1.3322	0.7581	20	47-40-62
G1282	KG/Gal	10	3.823	3.748		1.3191	2% - Class 8 ONLY	2:1	1.3060	1.3322	0.7581	20	47-40-62
G1287	KG/Gal	10	4.816	4.720	TVC	1.0702	Class 8 ONLY	2:1	1.0595	1.0809	0.9344	10	57-61
G1288	KG/Gal	10	3.82	3.75		3.9600	2% - Direct Drive ONLY	2:1	3.9204	3.9996	0.2525	40	30-63-35-66
G1289	KG/Gal	10	3.82	3.75	Preset	3.9600	2% - Direct Drive ONLY	2:1	3.9204	3.9996	0.2525	40	30-63-35-66
G1348	LBS/Gal	10	7.191	7.049		1.4333		3:1*	1.4190	1.4476	0.6977	20	30-45-43
G1350	LBS/Gal	10	7.330	7.184		1.4063		3:1*	1.3923	1.4203	0.7111	20	32-45-45
G1357	LBS/Gal	10	7.549	7.400		1.3652		3:1*	1.3516	1.3788	0.7324	20	41-50-56
G1362	LBS/Gal	10	7.575	7.425	TVC	1.3600		3:1*	0.3464	1.3736	0.7353	10	50-68
G1365	LBS/Gal	10	7.682	7.530		1.3417		3:1*	1.3283	1.3551	0.7453	20	41-41-55
G1366	LBS/Gal	10	7.724	7.574	TVC	1.3340		3:1*	1.3207	1.3473	0.7500	10	51-68
G1373	LBS/Gal	10	7.828	7.673		1.3191		3:1*	1.3060	1.3322	0.7581	20	47-40-62
G1379	LBS/Gal	10	7.878	7.722	TVC	1.3137		3:1*	1.3006	1.3268	0.7612	10	51-67
G1382	LBS/Gal	10	7.908	7.752	TVC	1.2885		3:1*	1.2757	1.3013	0.7761	10	52-67
G1419	LBS/Gal	10	8.413	8.247	TVC	1.2264		3:1*	1.2142	1.2386	0.8154	10	53-65
G1421	LBS/Gal	10	8.423	8.257		1.2000	2%	3:1*	1.1880	1.2120	0.8333	20	40-40-48
G1425	LBS/Gal	10	8.698	8.525	TVC	1.1852		3:1*	1.1734	1.1970	0.8438	10	54-64
G1427	LBS/Gal	10	8.423	8.257	Preset	1.2000		3:1*	1.1880	1.2120	0.8333	20	40-40-48
G1446	LBS/Gal	10	8.893	8.716		1.1591		3:1*	1.1476	1.1706	0.8620	20	44-40-51
G1491	LBS/Gal	10	7.270	7.130		2.1250	Direct Drive ONLY	2:1	2.1037	2.1462	0.0471	20	32-40-68
G1492	LBS/Gal	10	10.450	10.250	Preset	1.4783	Direct Drive ONLY	2:1	1.4635	1.4930	0.6765	20	46-45-68
G1507	LBS/Gal	10	10.807	10.593		0.9583		3:1*	0.9488	0.9678	1.0435	20	48-46-46
G1525	LBS/Gal	10	11.031	10.812	Preset/TVC	0.9344		3:1*	0.9251	0.9437	1.0702	10	61-57
G1530	LBS/Gal	10	11.312	11.088	Preset	0.9111		3:1*	0.9019	0.9202	1.0975	20	45-40-41
G1532	LBS/Gal	10	11.244	11.022		0.9167		3:1*	0.9076	0.9258	1.0909	20	48-40-44
G1535	LBS/Gal	10	11.452	11.226		0.9000		3:1*	0.8910	0.9090	1.1111	20	50-40-45
G1538	LBS/Gal	10	11.663	11.432		0.8837		3:1*	0.8749	0.8925	1.1316	20	43-40-38
G1541	LBS/Gal	10	11.893	11.657		0.8667		3:1*	0.8581	0.8753	1.1538	20	45-40-39
G1554	LBS/Gal	10	12.884	12.629		0.8000		3:1*	0.7920	0.8080	1.2500	20	50-40-40
G1618	LITRES/Gal	10			Preset	1.3191	2% - Class 8 ONLY	2:1	1.3059	1.3323	0.7581	20	47-40-62
G1619	LITRES/Gal	10			Preset/TVC	1.3478	Class 8 ONLY	2:1	1.3343	1.3612	0.7419	30	46-40-40-62
G1620	LITRES/Gal	10				1.3478	Class 8 ONLY	2:1	1.3343	1.3612	0.7419	20	46-40-62
G1621	LITRES/Gal	10			TVC	1.3478	Class 8 ONLY	2:1	1.3343	1.3612	0.7419	30	46-40-40-62
G1622	LITRES/Gal	10				1.3191	2% - Class 8 ONLY	2:1	1.3059	1.3323	0.7581	20	47-40-62
G1623	LITRES/Gal	10			TVC	1.3191	2% - Class 8 ONLY	2:1	1.3059	1.3323	0.7581	30	47-40-40-62
G1633	LITRES/Gal	10			Preset	1.3478	Class 8 ONLY	2:1	1.3343	1.3612	0.7419	20	46-40-62

\* 3:1 packing gland ratio for direct drive M-5 and 1:1 for M-5 with internal gearing.



## M-5 Gear Plate Listing (continued)

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	Low					Min	Max			
G1638	LITRES/Gal	10			Preset/TVC	2.6406	2%	3:1*	2.6142	2.667	0.3787	50	40-65-56-56-40-65
G1643	LITRES/Gal	10				4.0408	Direct Drive ONLY	2:1	4.0004	4.0812	0.2475	40	35-66-35-75
G1644	LITRES/Gal	10			Preset	4.0408	Direct Drive ONLY	2:1	4.0004	4.0812	0.2475	40	35-66-35-75
G1645	LITRES/Gal	10			TVC	4.0408	Direct Drive ONLY	2:1	4.0004	4.0812	0.2475	50	35-66-54-54-35-75
G1646	LITRES/Gal	10			Preset/TVC	4.0408	Direct Drive ONLY	2:1	4.0004	4.0812	0.2475	50	35-66-54-54-35-75
G1647	LITRES/Gal	10				3.9600	2% - Direct Drive ONLY	2:1	3.9204	3.9996	0.2525	40	30-63-35-66
G1648	LITRES/Gal	10			Preset	3.9600	2% - Direct Drive ONLY	2:1	3.9204	3.9996	0.2525	40	30-63-35-66
G1649	LITRES/Gal	10			TVC	3.9600	2% - Direct Drive ONLY	2:1	3.9204	3.9996	0.2525	50	30-63-54-54-35-66

\* 3:1 packing gland ratio for direct drive M-5 and 1:1 for M-5 with internal gearing.

## M-7 & M-10 Gear Plate Listing

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G2102	US GAL	10				6.7857	2%	2:1	6.7179	6.8535	0.1474	50	28-76-56-56-30-75
G2103	US GAL	10			PRESET	6.7857	2%	2:1	6.7179	6.8535	0.1474	40	28-76-30-75
G2106	US GAL	10			TVC	6.9643		2:1	6.8947	7.0339	0.1436	50	28-75-56-56-30-78
G2109	US GAL	10			PRESET	6.9643		2:1	6.8947	7.0339	0.1436	40	28-75-30-78
G2112	US GAL	10				6.9643		2:1	6.8947	7.0339	0.1436	40	28-75-30-78
G2123	1/10 US GAL	1			PRESET	0.6857	2%	2:1	0.6789	0.6925	1.4583	10	70-48
G2126	1/10 US GAL	1				0.6857	2%	2:1	0.6789	0.6925	1.4583	10	70-48
G2129	1/10 US GAL	1			PRESENT	0.6956		2:1	0.6887	0.7025	1.4375	10	69-48
G2132	1/10 US GAL	1				0.6956		2:1	0.6887	0.7025	1.4375	10	69-48
G2146	1/10 US GAL	1				1.36	2%	1:1	1.3464	1.3736	0.7353	10	50-68
G2152	IMP GAL	10				8.1707	2%	2:1	8.089	8.2524	0.1224	50	30-60-41-67-30-75
G2155	IMP GAL	10			PRESET	8.3483		2:1	8.2649	8.4317	0.1198	50	34-69-37-75 34-69
G2156	IMP GAL	10				8.3483		2:1	8.2649	8.4317	0.1198	50	34-69-37-75-34-69
G2160	1/10 IMP GAL	1			PRESET	0.8154	2%	2:1	0.8073	0.8235	1.2264	10	65-53
G2162	1/10 IMP GAL	1				0.8154	2%	2:1	0.8073	0.8235	1.2264	10	65-53
G2165	1/10 IMP GAL	1			PRESET	0.8308		2:1	0.8225	0.8391	1.2037	10	65-54
G2166	1/10 IMP GAL	1				0.8308		2:1	0.8225	0.8391	1.2037	10	65-54
G2174	KG/GAL	10	2.947	2.889	TVC	2.3333	2%	2:1	2.3100	2.3566	0.4286	50	39-52-48-48-32-56
G2176	KG/GAL	10	3.023	2.963	TVC	2.3214		2:1	2.2982	2.3446	0.4307	30	28-48-48-65
G2177	KG/GAL	10	3.023	2.963		2.3214		2:1	2.2982	2.3446	0.4307	20	28-48-65
G2179	KG/GAL	10	3.066	3.005	TVC	2.2907		2:1	2.2678	2.3136	0.4365	50	37-56-48-48-37-56
G2182	KG/GAL	10	3.249	3.185	TVC	2.1613		2:1	2.1397	2.1829	0.4627	30	31-48-48-67
G2184	KG/GAL	10	3.276	3.211	TVC	2.1429		2:1	2.1215	2.1643	0.4667	30	35-40-40-75
G2185	KG/GAL	10	3.334	3.268	TVC	2.1071		2:1	2.0861	2.1281	0.4746	30	28-48-48-59
G2187	KG/GAL	10	3.402	3.335	TVC	2.0645		2:1	2.0439	2.0851	0.4844	30	31-48-48-64
G2188	KG/GAL	10	3.509	3.439		2.0000		2:1	1.9800	2.0200	0.5000	20	30-48-60
G2189	KG/GAL	10	3.582	3.511	TVC	1.9643		2:1	1.9447	1.9839	0.5091	30	28-48-48-55
G2190	KG/GAL	10	3.617	3.545	TVC	1.9429		2:1	1.9235	1.9623	0.5147	30	35-40-40-68
G2191	KG/GAL	10	3.704	3.631	TVC	1.8929		2:1	1.874	1.9118	0.5283	30	28-48-48-53
G2192	KG/GAL	10	3.754	3.68	TVC	1.8667		2:1	1.8481	1.8853	0.5357	30	30-45-45-56
G2193	KG/GAL	10	3.88	3.803	TVC	1.8095		2:1	1.7915	1.8275	0.5526	10	42-76
G2194	KG/GAL	10	3.940	3.862		1.7813		2:1	1.7635	1.7991	0.5614	20	32-45-57
G2195	KG/GAL	10	4.018	3.938		1.7442		2:1	1.7268	1.7616	0.5733	10	43-75
G2199	KG/GAL	10	4.679	4.586		1.5000		2:1	1.485	1.515	0.6667	20	30-48-45
G2201	KG/GAL	10	4.902	4.805		1.4318		2:1	1.4175	1.4461	0.6984	20	44-30-63
G2202	KG/GAL	10	4.925	4.828		1.4250		2:1	1.4108	1.4392	0.7018	20	40-45-57
G2203	KG/GAL	10	5.082	4.981		1.3809		2:1	1.3671	1.3947	0.7240	20	42-40-58
G2205	KG/GAL	10	5.342	5.236		1.3137		2:1	1.3006	1.3268	0.7612	10	51-67
G2206	KG/GAL	10	5.350	5.244		2.6238		1:1	2.5976	2.6500	0.3811	40	30-57-42-58
G2207	KG/GAL	10	5.420	5.320		1.2941		2:1	1.2812	1.3070	0.7700	20	34-44-44
G2209	KG/GAL	10	5.771	5.656		1.2162		2:1	1.2041	1.2283	0.8222	40	37-40-40-45
G2210	KG/GAL	10	5.824	5.708		1.2051		2:1	1.1931	1.2171	0.8298	20	39-40-47
G2225	KG/GAL	10	7.684	7.532		0.9131		2:1	0.9040	0.9222	1.0952	40	46-40-40-42
G2226	KG/GAL	10	7.852	7.696		0.8929		2:1	0.8840	0.9018	1.1200	20	56-36-50
G2292	KG/GAL	10	16.283	15.96		0.8621		1:1	0.8535	0.8707	1.16	20	58-40-50
G2294	KG/GAL	10	16.556	16.228		0.8478		1:1	0.8394	0.8562	1.1795	20	46-40-39
G2299	KG/GAL	100	17.064	16.727		4.1129		2:1	4.0718	4.1540	0.2431	40	31-51-30-75

# M-7 & M-10 Gear Plate Listing (continued)

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G2304	LBS/GAL	10	2.527	2.477		2.7778		2:1	2.7501	2.8055	0.3600	40	39-65-39-65
G2309	LBS/GAL	10	3.407	3.340	TVC	2.0186	2%	2:1	1.9985	2.0387	4.0954	50	45-62-60-60-43-63
G2313	LBS/GAL	10	3.820	3.740	PRESET	1.8387		2:1	1.8204	1.8570	0.5438	20	31-46-57
G2314	LBS/GAL	10	3.820	3.740		1.8387		2:1	1.8204	1.8570	0.5438	20	31-46-57 41349
G2317	LBS/GAL	10	4.235	4.151		1.6579		2:1	1.6414	1.6744	0.6032	20	38-40-63
G2320	LBS/GAL	10	4.780	4.690	PRESET	1.4687		2:1	1.4541	1.4833	0.6808	20	32-48-47
G2321	LBS/GAL	10	4.780	4.690		1.4687		2:1	1.4541	1.4833	0.6808	20	32-48-47
G2322	LBS/GAL	10	5.188	5.085	TVCNH3	1.3529		2:1	1.3394	1.3664	0.7391	30	34-40-40-46
G2324	LBS/GAL	10	6.015	5.896	TVC	1.1666		2:1	1.155	1.1782	0.8571	30	48-48-48-56
G2327	LBS/GAL	10	6.34	6.21	PRESET	1.1071		2:1	1.0961	1.1181	0.9032	10	56-62
G2328	LBS/GAL	10	6.34	6.21		1.1071		2:1	1.0961	1.1181	0.9032	10	56-62
G2329	LBS/GAL	100	6.417	6.29	TVC	10.918		2:1	10.8098	11.0271	0.0915	50	30-70-34-75-33-70
G2330	LBS/GAL	10	6.408	6.281		1.0952		2:1	1.0843	1.1061	0.913	20	42-40-46
G2331	LBS/GAL	10	6.534	6.404		2.1053	2%	1:1	2.0843	2.1263	0.475	10	38-80
G2334	LBS/GAL	10	6.551	6.421		2.1429		1:1	2.1215	2.1643	0.4667	20	35-40-75
G2337	LBS/GAL	10	6.628	6.497		1.0588		2:1	1.0483	1.0693	0.9444	20	51-40-54
G2340	LBS/GAL	10	6.78	6.65	PRESET	1.0345		2:1	1.0242	1.0448	0.9667	10	58-60
G2341	LBS/GAL	10	6.78	6.65		1.0345		2:1	1.0242	1.0448	0.9667	10	58-60
G2344	LBS/GAL	10	6.917	6.78		2.0294		1:1	2.0092	2.0496	0.493	20	34-40-69
G2346	LBS/GAL	10	6.997	6.858		0.9831	2%	2:1	0.9733	0.9929	1.0172	10	59-58
G2347	LBS/GAL	10	7.006	6.868		1		2:1	0.99	1.01	1	10	59-59
G2349	LBS/GAL	100	7.085	6.944		9.9064		2:1	9.8074	10.0050	4.1009	50	33-63-34-65-28-76
G2350	LBS/GAL	10	7.12	6.979	TVC	1.9714		1:1	1.9517	1.9911	0.5072	30	35-40-40-69
G2357	LBS/GAL	10	7.39	7.24	PRESET	1.9		1:1	1.881	1.919	0.5263	20	30-48-57
G2358	LBS/GAL	10	7.39	7.24		1.9000		1:1	1.881	1.919	0.5263	20	30-48-57
G2365	LBS/GAL	10	7.589	7.439		1.8125	2%	1:1	1.7944	1.8306	0.5517	20	32-40-58
G2368	LBS/GAL	10	7.62	7.469		1.8421		1:1	1.8237	1.8605	0.543	20	38-40-70
G2371	LBS/GAL	10	7.637	7.486		1.8378		1:1	1.8195	1.8561	0.5441	20	37-40-68
G2374	LBS/GAL	10	7.67	7.52		1.7941	2%	1:1	1.7762	1.8120	0.5574	20	34-40-61
G2377	LBS/GAL	10	7.76	7.6	PRESET	1.8095		1:1	1.7915	1.8275	0.5526	10	42-76
G2378	LBS/GAL	10	7.76	7.6		1.8095		1:1	1.7915	1.8275	0.5526	10	42-76 41967
G2387	LBS/GAL	10	7.96	7.8		1.7632		1:1	1.7456	1.7808	0.5672	20	38-40-67
G2393	LBS/GAL	10	8.05	7.89	PRESET	1.7442		1:1	1.7268	1.7616	0.5733	10	43-75
G2394	LBS/GAL	10	8.05	7.89		1.7442		1:1	1.7268	1.7616	0.5733	10	43-75
G2398	LBS/GAL	10	8.188	8.026		1.7142		1:1	1.6971	1.7313	0.5830	20	28-50-48
G2401	LBS/GAL	10	8.19	8.03		1.7143		1:1	1.6972	1.7314	0.5833	20	35-40-60
G2405	LBS/GAL	10	8.257	8.093		1.7000		1:1	1.6830	1.7170	0.5882	20	40-40-68
G2411	LBS/GAL	10	8.284	8.12		1.6944		1:1	1.6775	1.7113	0.5901	20	36-48-61
G2414	LBS/GAL	10	8.29	8.130		1.6585	2%	1:1	1.642	1.675	0.6029	20	41-48-68
G2418	LBS/GAL	10	8.324	8.16		0.8269	2%	2:1	0.8187	0.8351	1.2093	20	52-43-43
G2428	LBS/GAL	100	8.586	8.416		8.1738		2:1	8.0921	8.2555	0.1223	50	37-67-36-65-30-75
G2429	LBS/GAL	10	8.605	8.435		1.6315		1:1	1.6152	1.6478	0.6129	20	38-40-62
G2433	LBS/GAL	10	8.736	8.563		1.575	2%	1:1	1.5593	1.5907	0.6349	20	40-40-63
G2435	LBS/GAL	10	8.740	8.567	TVC	1.6061		1:1	1.5901	1.6221	0.6226	30	33-40-40-53
G2438	LBS/GAL	10	8.747	8.574		1.6046		1:1	1.5886	1.6206	0.623	20	43-43-69
G2442	LBS/GAL	100	8.805	8.630		7.9714		2:1	7.8917	8.0511	0.125	50	35-62-35-63-30-75
G2445	LBS/GAL	10	8.890	8.710	PRESET	1.5790		1:1	1.5633	1.5947	0.6333	20	38-48-60
G2446	LBS/GAL	10	8.890	8.710		1.5790		1:1	1.5633	1.5947	0.6333	20	38-48-60
G2451	LBS/GAL	10	8.992	8.814		1.5609		1:1	1.5453	1.5765	0.6406	20	41-40-64
G2455	LBS/GAL	10	9.173	8.991	PRESET	1.5313		1:1	1.5160	1.5466	0.6531	20	32-48-49
G2458	LBS/GAL	10	9.200	9.020		1.5250		1:1	1.5098	1.5402	0.6557	20	40-40-61
G2461	LBS/GAL	10	9.260	9.080	TVC	1.5152		1:1	1.5001	1.5303	0.6600	30	33-40-40-50
G2467	LBS/GAL	10	9.360	9.170	PRESET	1.5000		1:1	1.4850	1.5150	0.6667	20	30-43-45
G2468	LBS/GAL	10	9.360	9.170		1.5000		1:1	1.4850	1.5150	0.6667	20	30-43-45
G2471	LBS/GAL	10	9.502	9.314		1.4773		1:1	1.4626	1.4920	0.6769	20	44-44-65
G2477	LBS/GAL	10	9.508	9.320		1.4762		1:1	1.4615	1.4909	0.6770	20	42-40-62
G2480	LBS/GAL	10	9.7	9.5		1.4474		1:1	1.433	1.4618	0.6909	20	38-40-55
G2483	LBS/GAL	10	9.800	9.610		1.4318		1:1	1.4175	1.4461	0.6984	20	44-30-63
G2486	LBS/GAL	10	9.800	9.610	PRESET	1.4318		1:1	1.4175	1.4461	0.6984	20	44-30-63
G2489	LBS/GAL	10	9.933	9.737		1.4130		1:1	1.3989	1.4271	0.7077	20	46-46-65
G2492	LBS/GAL	10	9.960	9.770		1.4081		1:1	1.3941	1.4221	0.7100	10	49-69
G2495	LBS/GAL	10	10.120	9.920		1.3846		1:1	1.3708	1.3984	0.7222	20	39-40-54 41972
G2496	LBS/GAL	10	10.120	9.920	PRESET	1.3846		1:1	1.3708	1.3984	0.7222	20	39-40-54
G2501	LBS/GAL	10	10.321	10.117		1.3600		1:1	1.3464	1.3736	0.7353	10	50-68
G2502	LBS/GAL	10	10.249	10.046		1.3695		1:1	1.3559	1.3831	0.7301	20	46-46-63
G2507	LBS/GAL	10	10.332	10.127		1.3571		1:1	1.3436	1.3706	0.7368	20	42-40-57
G2510	LBS/GAL	10	10.350	10.150		1.3555		1:1	1.3400	1.3690	0.7377	20	45-40-61
G2513	LBS/GAL	10	10.53	10.32	PRESET	1.3333		1:1	1.32	1.3466	0.75	10	51-68

## M-7 & M-10 Gear Plate Listing (continued)

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G2514	LBS/GAL	10	10.53	10.32		1.3333		1:1	1.32	1.3466	0.75	10	51-68
G2520	LBS/GAL	10	10.684	10.473		1.3137	2%	1:1	1.3006	1.3268	0.7612	10	51-67
G2523	LBS/GAL	10	10.9	10.68	PRESET	1.2885		1:1	1.2757	1.3013	0.7761	10	52-67
G2524	LBS/GAL	10	10.9	10.68		1.2885		1:1	1.2757	1.3013	0.7761	10	52-67
G2530	LBS/GAL	10	11.168	10.73		1.2692		1:1	1.2566	1.2818	0.7879	10	52-66
G2533	LBS/GAL	10	11.18	10.96	PRESET	1.2553		1:1	1.2428	1.2678	0.7966	20	47-30-59
G2534	LBS/GAL	10	11.18	10.96		1.2553		1:1	1.2428	1.2678	0.7966	20	47-30-59
G2536	LBS/GAL	10	11.251	11.029		1.2264	2%	1:1	1.2142	1.2386	0.8154	10	53-65
G2537	LBS/GAL	10	11.3	11.1		1.2400		1:1	1.2276	1.2524	0.806	20	50-40-62
G2543	LBS/GAL	10	11.45	11.22	PRESET	1.2264		1:1	1.2142	1.2386	0.8154	10	53-65
G2544	LBS/GAL	10	11.45	11.22		1.2264		1:1	1.2142	1.2386	0.8154	10	53-65
G2547	LBS/GAL	10	11.66	11.43	PRESET	1.2037		1:1	1.1917	1.2157	0.8307	10	54-65
G2548	LBS/GAL	10	11.66	11.43		1.2037		1:1	1.1917	1.2157	0.8307	10	54-65
G2551	LBS/GAL	10	11.79	11.56		1.1666	2%	1:1	1.1550	1.1782	0.8571	20	42-42-49
G2554	LBS/GAL	10	11.84	11.61	PRESET	1.1852		1:1	1.1734	1.1970	0.8438	10	54-64
G2555	LBS/GAL	10	11.84	11.61		1.1852		1:1	1.1734	1.197	0.8438	10	54-64
G2561	LBS/GAL	10	11.931	11.695		1.1765		1:1	1.1648	1.1882	0.85	20	34-40-40
G2564	LBS/GAL	10	12.07	11.83	PRESET	1.1636		1:1	1.152	1.1752	0.8593	10	55-64
G2565	LBS/GAL	10	12.07	11.83		1.1636		1:1	1.152	1.1752	0.8593	10	55-64
G2567	LBS/GAL	10	12.231	11.989		1.1454		1:1	1.1340	1.1568	0.8730	10	55-63
G2568	LBS/GAL	10	12.254	12.012		1.1454		1:1	1.1340	1.1568	0.8730	10	55-63
G2571	LBS/GAL	10	12.43	12.18	PRESET	1.1316		1:1	1.1203	1.1429	0.8837	20	38-40-43
G2572	LBS/GAL	10	12.43	12.18		1.1316		1:1	1.1203	1.1429	0.8837	20	38-40-43
G2575	LBS/GAL	10	12.501	12.234	TVC	1.1228		1:1	1.1116	1.1340	0.8906	30	49-40-40-55
G2578	LBS/GAL	10	12.678	12.427		1.1071		1:1	1.0961	1.1181	0.9032	10	56-62
G2581	LBS/GAL	10	12.891	12.636		1.0889		1:1	1.0781	1.0997	0.9184	20	45-40-49
G2584	LBS/GAL	10	13.12	12.86		1.0702		1:1	1.0595	1.0809	0.9344	10	57-61
G2587	LBS/GAL	10	13.332	13.068		1.0526		1:1	1.0421	1.0631	0.9500	20	38-40-40
G2589	LBS/GAL	10	14.037	13.759		1.0000		1:1	0.9900	1.0100	1.0000	10	59-59
G2590	LBS/GAL	10	14.1	13.82		0.9756		1:1	0.9659	0.9853	1.0250	20	41-40-40
G2596	LBS/GAL	10	14.35	14.070		0.9777		1:1	0.968	0.9874	1.0227	20	45-45-44
G2599	LBS/GAL	10	14.647	14.357		0.9583		1:1	0.9488	0.9678	1.0435	20	48-46-46
G2673	LITERS/GAL	10			TVC	1.8000	2%	2:1	1.782	1.818	0.5555	30	35-45-45-63
G2674	LITERS/GAL	10				1.8	2%	2:1	1.7820	1.8180	0.5555	20	30-48-54
G2680	LITERS/GAL	10			PRESET	1.8387		2:1	1.8204	1.857	0.5438	20	31-46-57 40449
G2681	LITERS/GAL	10				1.8387		2:1	1.8204	1.857	0.5438	20	31-46-57 41349
G2690	DEKALITERS/GAL	10				18.3933		2:1	18.2094	18.5772	0.0544	50	28-72-34-64-20-76
G2870	WHOLE PINTS	10				1.7368		1:1	1.7195	1.7541	0.5758	20	38-45-66
G2877	WHOLE QUARTS	10				1.7370		2:1	1.7197	1.7543	0.5758	20	38-45-66
G288	1/10 CUBIC FT	1				5.1935		2:1	5.1416	5.2454	0.1925	50	30-69-58-58-31-70

# M-15 & M-25 Gear Plate Listing

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G3114	US GAL	10			PRESET	2.5161	2%	2:1	2.491	2.5412	0.3974	20	31-45-78
G3115	US GAL	10				2.5161	2%	2:1	2.491	2.5412	0.3974	20	31-45-78
G3116	US GAL	10			TVC	2.5161	2%	2:1	2.491	2.5412	0.3974	30	31-41-41-78
G3123	US GAL	10			TVC	2.5714		2:1	2.5457	2.5971	0.3888	30	28-46-46-72
G3124	US GAL	10			TVC	2.5714		2:1	2.5457	2.5971	0.3888	30	28-46-46-72
G3125	US GAL	10			PRESET	2.5714		2:1	2.5457	2.5971	0.3888	20	28-48-72
G3126	US GAL	10				2.5714		2:1	2.5457	2.5971	0.3888	20	28-48-72
G3160	1/10 US GAL	1			PRESET	0.5147		1:1	0.5096	0.5198	1.9428	20	68-40-35
G3161	1/10 US GAL	1				0.5147		1:1	0.5096	0.5198	1.9428	20	68-40-35
G3200	IMP GAL	10				3.0891		2:1	3.0583	3.1199	0.3237	40	33-58-33-58
G3201	IMP GAL	10			TVC	3.0891		2:1	3.0583	3.1199	0.3237	50	33-58-49-49-33-58
G3202	IMP GAL	10				3.0303	2%	2:1	3	3.0606	0.33	40	33-50-30-60
G3203	IMP GAL	10			TVC	3.0303	2%	2:1	3	3.0606	0.33	50	30-60-49-49-33-50
G3215	1/10 IMP GAL	1				0.6182		1:1	0.6121	0.6243	1.6176	20	55-48-34
G3216	1/10 IMP/GAL	1			TVC	0.6182		1:1	0.6121	0.6243	1.6176	30	55-40-40-34
G3217	1/10 IMP GAL	1				0.6065	2%	1:1	0.6005	0.6125	1.6486	20	61-40-37
G3218	1/10 IMP GAL	1			TVC	0.6065	2%	1:1	0.6005	0.6125	1.6486	30	61-40-40-37
G3229	KG/GAL	10			TVC	1.5111		1:1	1.496	1.5262	0.6618	30	45-40-40-68
G3230	KG/GAL	10	3.436	3.368		1.5135		1:1	1.4984	1.5286	0.6607	20	37-40-56
G3235	KG/GAL	100	3.44	3.372	TVC	15.1182		1:1	14.9671	15.2693	0.0660	50	28-59-28-75-28-75
G3305	LBS/GAL	10	6.562	6.432		0.7925		1:1	0.7846	0.8004	1.2619	20	53-40-42
G3307	LBS/GAL	10	6.706	6.574		0.7755		1:1	0.7678	0.7832	1.2895	20	49-49-38
G3310	LBS/GAL	10	6.932	6.795		0.7353	2%	1:1	0.7280	0.7426	1.3600	10	68-50
G3320	LBS/GAL	100	7.079	6.939	TVC	3.6736		2:1	3.6369	3.7103	0.2722	50	36-69-56-56-36-69
G3326	LBS/GAL	100	7.204	7.061		3.6100		2:1	3.5739	3.6461	0.2770	40	30-57-30-57
G3328	LBS/GAL	10	7.222	7.079		0.7200		1:1	0.7128	0.7272	1.3888	20	50-40-36
G3329	LBS/GAL	10	7.342	7.196	TVC	0.7083		1:1	0.7013	0.7153	1.4118	30	48-40-40-34
G3330	LBS/GAL	100	7.508	7.359		3.4637		2:1	3.4291	3.4983	0.2890	40	36-67-36-67
G3335	LBS/GAL	10	7.584	7.434		0.6857		1:1	0.6789	0.6925	1.4583	10	70-48
G3338	LBS/GAL	100	7.59	7.44	TVC	3.4261		2:1	3.3919	3.4603	0.2900	50	44-63-49-49-28-67
G3342	LBS/GAL	10	7.676	7.524		0.6774		1:1	0.6707	0.6841	1.4762	20	62-40-42
G3343	LBS/GAL	10	7.676	7.524	TVC	0.6774		1:1	0.6707	0.6841	1.4762	30	62-40-40-42
G3344	LBS/GAL	100	7.74	7.59	TVC	3.3564		2:1	3.3229	3.3899	0.298	50	30-57-44-60-44-57
G3346	LBS/GAL	10	7.801	7.647		0.6667		1:1	0.6601	0.6733	1.5	20	57-38-38
G3347	LBS/GAL	10	7.801	7.647	TVC	0.6667		1:1	0.6601	0.6733	1.5	30	57-38-38-38
G3349	LBS/GAL	10	8.244	8.081		0.6308		1:1	0.6245	0.6371	1.5854	20	65-40-41
G3350	LBS/GAL	10	8.581	8.411		0.6061		1:1	0.6001	0.6121	1.65	20	66-40-40
G3353	LBS/GAL	100	8.429	8.268		3.0232		2:1	2.993	3.0534	0.3307	40	43-65-30-60
G3356	LBS/GAL	10	8.450	8.280	PRESET	0.6168		1:1	0.617	0.6229	1.6200	20	60-40-37
G3357	LBS/GAL	10	8.450	8.280		0.6168		1:1	0.617	0.6229	1.6200	20	60-40-37
G3358	LBS/GAL	10	8.409	8.242		0.6061	2%	1:1	0.6001	0.6121	1.6500	20	66-40-40
G3359	LBS/GAL	100	8.488	8.319	TVC/PST	3.0625		2:1	3.0319	3.0931	0.3265	50	32-49-48-48-30-60
G3360	LBS/GAL	100	8.691	8.520	PRESET	2.9920		2:1	2.9621	3.0219	0.3340	40	37-64-37-64
G3361	LBS/GAL	10	8.841	8.666		0.5882		1:1	0.5824	0.5940	1.7000	20	68-40-40
G3362	LBS/GAL	10	8.959	8.781		0.5689	2%	1:1	0.5633	0.5745	1.7576	20	58-40-33
G3363	LBS/GAL	100	9.242	9.059	PRESET	2.8137		2:1	2.7856	2.8418	0.3342	40	31-52-31-52
G3369	LBS/GAL	100	9.262	9.078		2.8079		2:1	2.7799	2.8359	0.3560	40	37-62-37-62
G3373	LBS/GAL	100	9.417	9.230	TVC/PST	2.7600		2:1	2.7324	2.7876	0.3623	40	50-60-50-50-30-69
G3374	LBS/GAL	10	9.696	9.504		0.5362		1:1	0.5309	0.5415	1.8649	20	69-40-37
G3510	LITERS/GAL	10				1.3333	2%	1:1	1.3200	1.3466	0.7500	20	48-48-64 41973
G3516	LITERS/GAL	10			PRESET	1.3600		1:1	1.3464	1.3736	0.7353	10	50-68 41353
G3517	LITERS/GAL	10				1.3600		1:1	1.3464	1.3736	0.7353	10	50-68 41980
G3550	DEKALITERS/GAL	10				6.7857		2:1	6.7179	6.8535	0.1474	40	28-70-28-76 41981
G3555	DEKALITERS/GAL	10				6.6597	2%	2:1	6.5932	6.7262	0.1501	40	31-80-31-80
G3560	DEKALITERS/GAL	10			PRESET	6.7857		2:1	6.7179	6.8535	0.1474	40	28-70-28-76
G3644	42 GAL/BARREL	1			PRESET	10.8333		2:1	10.7250	10.9416	0.0923	50	30-52-30-75-30-75
G3645	42 GAL/BARREL	1				10.8333		2:1	10.7250	10.9416	0.0923	50	30-52-30-75-30-75
G3646	42 GAL/BARREL	1				10.5903	2%	2:1	10.4844	10.6962	0.0944	50	36-61-30-75-30-75
G3650	1/10 CUBIC FT	1				1.8857	2%	2:1	1.8669	1.9045	0.5303	20	35-40-66
G3651	1/10 CUBIC FT	1				1.9231		2:1	1.9039	1.9423	0.52	20	39-39-75

# M-30 & M-40 Gear Plate Listing

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G4110	US GAL	10				0.9091	2%	2:1	0.9001	0.9181	1.1	20	55-40-50
G4111	US GAL	10			TVC	0.9091	2%	2:1	0.9001	0.9181	1.1	30	55-40-40-50
G4115	US GAL	10				1.8571		1:1	1.8386	1.8756	0.5385	20	35-40-65
G4116	US GAL	10			TVC	1.8571		1:1	1.8386	1.8756	0.5385	30	35-40-40-65
G4118	US GAL	10			TVC	1.8182	2%	1:1	1.8001	1.8363	0.55	30	33-48-48-60
G4120	US GAL	10			PRESET	0.9344		2:1	0.9251	0.9437	1.0702	10	61-57
G4121	US GAL	10				0.9344		2:1	0.9251	0.9437	1.0702	10	61-57
G4132	US GAL	100				9.2857		2:1	9.1929	9.3785	0.1077	50	28-60-31-65-30-62
G4134	US GAL	100				9.0909		2:1	9.0000	9.1818	0.11	50	30-60-33-75-35-70
G4150	IMP GAL	10				1.1071		2:1	1.0961	1.1181	0.9032	10	56-62
G4151	IMP GAL	10			PRESET	1.1071		2:1	1.0961	1.1181	0.9032	10	56-62
G4153	IMP GAL	10				1.0926	2%	2:1	1.0817	1.1035	0.9153	20	54-30-59
G4154	IMP GAL	10			TVC	1.0926	2%	2:1	1.0817	1.1035	0.9153	30	54-30-30-59
G4219	LBS/GAL	100	3.473	3.405	Z	2.699		2:1	2.6721	2.7259	0.3705	40	42-69-42-69
G4221	LBS/GAL	100	3.544	3.474	Z	2.6453		2:1	2.6189	2.6717	0.378	40	40-70-43-65
G4223	LBS/GAL	100	3.612	3.54	Z	2.5957		2:1	2.5698	2.6216	0.3853	40	36-58-36-58
G4225	LBS/GAL	100	3.684	3.611	Z	2.5448		2:1	2.5194	2.5702	0.393	40	42-67-42-67
G4227	LBS/GAL	100	3.75	3.676	Z	2.5000		2:1	2.4750	2.5250	0.4000	20	30-45-75
G4229	LBS/GAL	100	3.82	3.744	Z	2.4544		2:1	2.4299	2.4789	0.4074	40	30-47-30-47
G4231	LBS/GAL	100	3.889	3.812	Z	2.4107		2:1	2.3866	2.4348	0.4148	40	38-59-38-59
G4233	LBS/GAL	100	3.966	3.888	Z	2.3636		2:1	2.3400	2.3872	0.4231	20	33-40-78
G4236	LBS/GAL	100	4.043	3.963	Z	2.3187		2:1	2.2956	2.3418	0.4313	40	44-67-44-67
G4239	LBS/GAL	100	4.125	4.043	Z	2.2727		2:1	2.2500	2.2954	0.4400	20	33-40-75
G4242	LBS/GAL	100	4.207	4.123	Z	2.2286		2:1	2.2064	2.2508	0.4487	20	35-40-78
G4245	LBS/GAL	100	4.286	4.201	Z	2.1875		2:1	2.1657	2.2093	0.4571	20	32-40-70
G4248	LBS/GAL	100	4.367	4.281	Z	2.1466		2:1	2.1252	2.1680	0.4659	40	43-63-43-63
G4252	LBS/GAL	100	4.453	4.365	Z	2.1053		2:1	2.0843	2.1263	0.4750	10	38-80
G4255	LBS/GAL	100	4.536	4.446	Z	2.0667		2:1	2.0461	2.0873	0.4839	20	30-45-62
G4258	LBS/GAL	100	4.615	4.524	Z	2.0313		2:1	2.011	2.0516	0.4923	20	32-45-65
G4261	LBS/GAL	100	4.704	4.611	Z	1.9931		2:1	1.9732	2.013	0.5017	40	34-48-34-48
G4264	LBS/GAL	100	4.799	4.704	Z	1.9535		2:1	1.934	1.973	0.5119	40	43-60-35-49
G4267	LBS/GAL	100	4.884	4.787	Z	1.9196		2:1	1.9005	1.9387	0.5209	40	39-54-44-61
G4270	LBS/GAL	100	4.971	4.873	Z	1.8857		2:1	1.8669	1.9045	0.5303	20	35-40-66
G4273	LBS/GAL	100	5.072	4.971	Z	1.8485		2:1	1.8301	1.8669	0.541	20	33-45-61
G4276	LBS/GAL	100	5.172	5.070	Z	1.8125		2:1	1.7944	1.8306	0.5517	20	32-50-58
G4279	LBS/GAL	100	5.263	5.159	Z	1.7813		2:1	1.7635	1.7991	0.5614	20	32-50-57
G4282	LBS/GAL	100	5.357	5.251	Z	1.7500		2:1	1.7325	1.7675	0.5714	20	40-40-70
G4285	LBS/GAL	100	5.454	5.346	Z	1.7188		2:1	1.7017	1.7359	0.5818	20	32-45-55
G4288	LBS/GAL	100	5.561	5.451	Z	1.6857		2:1	1.6689	1.7025	0.5932	20	35-40-59
G4291	LBS/GAL	100	5.671	5.559	Z	1.6531		2:1	1.6366	1.6696	0.6049	40	35-45-35-45
G4294	LBS/GAL	100	5.781	5.667	Z	1.6216		2:1	1.6054	1.6378	0.6167	20	37-40-60
G4297	LBS/GAL	100	5.897	5.780	Z	1.5897		2:1	1.5739	1.6055	0.6290	20	39-40-62
G4300	LBS/GAL	100	5.999	5.881	Z	1.5625		2:1	1.5469	1.5781	0.6400	20	32-50-50
G4303	LBS/GAL	100	6.108	5.987	Z	1.5349		2:1	1.5196	1.5502	0.6515	20	43-40-66
G4306	LBS/GAL	100	6.224	6.101	Z	1.5062		2:1	1.4912	1.5212	0.6639	40	44-54-44-54
G4309	LBS/GAL	100	6.346	6.220	Z	1.4773		2:1	1.4626	1.4920	0.6769	20	44-40-65
G4312	LBS/GAL	100	6.477	6.349	Z	1.4474		2:1	1.433	1.4618	0.6909	20	38-40-55
G4315	LBS/GAL	100	6.592	6.461	Z	1.4222		2:1	1.4080	1.4364	0.7031	20	45-40-64
G4318	LBS/GAL	100	6.719	6.586	Z	1.3953		2:1	1.3814	1.4092	0.7167	20	43-40-60
G4321	LBS/GAL	100	6.836	6.700	Z	1.3714		2:1	1.3577	1.3851	0.7292	20	35-40-48
G4324	LBS/GAL	100	6.967	6.829	Z	1.3456		2:1	1.3322	1.3590	0.7432	40	50-58-50-58
G4327	LBS/GAL	100	7.088	6.948	Z	1.3226		2:1	1.3094	1.3358	0.7561	20	31-45-41
G4330	LBS/GAL	100	7.237	7.092	Z	1.2955		2:1	1.2826	1.3084	0.7719	20	44-40-57
G4333	LBS/GAL	100	7.377	7.231	Z	1.2708		2:1	1.2581	1.2835	0.7869	20	48-40-61
G4336	LBS/GAL	100	7.531	7.380	Z	1.2449		2:1	1.2325	1.2573	0.8033	20	49-35-61
G4339	LBS/GAL	100	7.670	7.518	Z	1.2222		2:1	1.2100	1.2344	0.8182	20	45-40-55
G4342	LBS/GAL	100	7.828	7.673	Z	1.1976		2:1	1.1857	1.2095	0.8350	40	53-58-53-58
G4345	LBS/GAL	100	7.969	7.811	Z	1.1765		2:1	1.1648	1.1882	0.85	20	34-40-40

# M-30 & M-40 Gear Plate Listing (continued)

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G4348	LBS/GAL	100	8.125	7.964	Z	1.1538		2:1	1.1423	1.1653	0.8667	20	52-40-60
G4351	LBS/GAL	100	8.272	8.108	Z	1.1333		2:1	1.122	1.1446	0.8824	20	45-40-51
G4354	LBS/GAL	100	8.437	8.27	Z	1.1111		2:1	1.1	1.1222	0.9	20	36-40-40
G4357	LBS/GAL	100	8.609	8.439	Z	1.0889		2:1	1.0781	1.0997	0.9184	20	45-40-49
G4358	LBS/GAL	100	8.606	8.436	Z	1.0893		2:1	1.0785	1.1001	0.918	20	56-40-61
G4360	LBS/GAL	100	8.75	8.577	Z	1.0714		2:1	1.0607	1.0821	0.9333	20	42-40-45
G4363	LBS/GAL	100	8.928	8.752	Z	1.05		2:1	1.0395	1.0605	0.9524	20	40-40-42
G4366	LBS/GAL	100	9.114	8.934	Z	1.0286		2:1	1.0184	1.0388	0.9722	20	35-40-36
G4367	LBS/GAL	100	9.291	9.107	Z	1.0090		2:1	0.9990	1.0190	0.9911	40	37-56-57-38
G4370	LBS/GAL	100	9.473	9.285	Z	0.9897		2:1	0.9799	0.9995	1.0104	40	37-53-55-38
G4372	LBS/GAL	100	9.663	9.472	Z	0.9705		2:1	0.9608	0.9802	1.0303	20	34-40-33
G4374	LBS/GAL	100	9.858	9.66	Z	0.9512		2:1	0.9417	0.9607	1.0513	20	41-40-39
G4376	LBS/GAL	100	10.061	9.86	Z	0.9318		2:1	0.9225	0.9411	1.0732	20	44-40-41
G4378	LBS/GAL	100	10.259	10.056	Z	0.9138		2:1	0.9047	0.9229	1.0943	20	58-40-53
G4380	LBS/GAL	100	10.44	10.233	Z	0.8980		2:1	0.8891	0.9069	1.1136	20	49-40-44
G4382	LBS/GAL	100	10.653	10.442	Z	0.88		2:1	0.8712	0.8888	1.1364	20	50-40-44
G4384	LBS/GAL	100	10.866	10.651	Z	0.8627		2:1	0.8541	0.8713	1.1591	20	51-40-44
G4386	LBS/GAL	100	11.079	10.86	Z	0.8462		2:1	0.8378	0.8546	1.1818	20	39-40-33
G4388	LBS/GAL	100	11.298	11.074	Z	0.8298		2:1	0.8216	0.838	1.2051	20	47-40-39
G4390	LBS/GAL	100	11.518	11.29	Z	0.8140		2:1	0.8059	0.8221	1.2286	20	43-40-35
G4392	LBS/GAL	10	11.898	11.662	X	0.3152		1:2	0.3121	0.3183	3.1729	40	57-32-57-32
G4393	LBS/GAL	100	11.953	11.716	Z	0.7843		2:1	0.7765	0.7921	1.2750	20	51-40-40
G4394	LBS/GAL	100	12.187	11.946	Z	0.7692		2:1	0.7616	0.7768	1.3000	20	52-40-40
G4395	LBS/GAL	100	12.427	12.181	Z	0.7544		2:1	0.7469	0.7619	1.3256	20	57-40-43
G4397	LBS/GAL	100	12.922	12.666	Z	0.7255		2:1	0.7183	0.7327	1.3784	20	51-35-37
G4398	LBS/GAL	100	13.183	12.922	Z	0.7111		2:1	0.7040	0.7182	1.4063	20	45-40-32
G4400	LBS/GAL	100	13.702	13.43	Z	0.6842		2:1	0.6774	0.6910	1.4615	20	57-35-39
G4401	LBS/GAL	100	13.948	13.672	Z	0.6712		2:1	0.6654	0.6788	1.4878	20	61-40-41
G4402	LBS/GAL	100	14.213	13.932	Z	0.6596		2:1	0.6531	0.6661	1.5161	20	47-45-31
G4403	LBS/GAL	100	14.488	14.201	Z	0.6471		2:1	0.6407	0.6535	1.5454	20	68-40-44
G4404	LBS/GAL	100	14.765	14.473	Z	0.6349		2:1	0.6286	0.6412	1.575	20	63-40-40
G4405	LBS/GAL	100	15.056	14.758	Z	0.6226		2:1	0.6164	0.6288	1.6061	20	53-40-33
G4406	LBS/GAL	100	15.364	15.059	Z	0.6102		2:1	0.6041	0.6163	1.6389	20	59-40-36
G4409	LITERS/GAL	10				0.4828	2%	1:1	0.4780	0.4876	2.0714	20	58-48-28
G4410	LITERS/GAL	10				0.4912		1:1	0.4863	0.4961	2.0358	20	57-48-28
G4450	CUBIC METERS	1				24.4653		2:1	24.2207	24.7099	0.0408	50	30-46-19-72-19-80
G4470	DEKALITERS/GAL	10				2.4516		2:1	2.4271	2.4761	0.4079	20	31-45-76
G4471	DEKALITERS/GAL	10			PRESET	2.4516		2:1	2.4271	2.4761	0.4079	20	31-45-76
G4473	DEKALITERS/GAL	10				2.4040	2%	2:1	2.3800	2.4280	0.4160	40	33-51-36-56
G4474	DEKALITERS/GAL	10			TVC	2.4040	2%	2:1	2.3800	2.4280	0.4160	50	33-51-50-50-36-56
G4510	42 GAL/BARREL	1				3.8158	2%	2:1	3.7777	3.8539	0.2620	50	30-58-60-60-38-75
G4515	42 GAL/BARREL	1				3.8954		2:1	3.8565	3.9343	0.2567	50	38-75-60-60-38-75
G4516	42 GAL/BARREL	1			PRESET	3.8954		2:1	3.8565	3.9343	0.2567	40	38-75-38-75
G4550	35 IMP GAL/BAR	1			TVC	3.8954		2:1	3.8565	3.9343	0.2567	50	38-75-60-60-38-75

# M-60, MS-75, M-80 & MS-120 Gear Plate Listing

## M-60 (old style) & MS-75

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G5110	US GAL	10				0.6389		1:1	0.6326	0.6452	1.5652	10	72-46
G5115	US GAL	10			PRESET	0.6389		1:1	0.6326	0.6452	1.5652	10	72-46
G5117	US GAL	10			TVC	0.625	2%	1:1	0.6188	0.6312	1.6	30	64-35-35-40
G5140	US GAL	10			1/1 ADJ	2.5436		1:1	2.5182	2.569	0.3931	40	35-56-39-62
G5210	IMP GAL	10			PRESET	0.7612		1:1	0.7536	0.7688	1.3137	10	67-51
G5211	IMP GAL	10				0.7612		1:1	0.7536	0.7688	1.3137	10	67-51
G5212	IMP GAL	10				0.75	2%	1:1	0.7425	0.7575	1.3333	20	60-40-45
G5410	DEKALITERS/GAL	10			PRESET	1.6829		1:1	1.6661	1.6997	0.5942	20	41-48-69
G5411	DEKALITERS/GAL	10				1.6829		1:1	1.6661	1.6997	0.5942	20	41-48-69
G5412	DEKALITERS/GAL	10				1.6486	2%	1:1	1.6322	1.665	0.6066	20	37-40-61
G5453	CUBIC METERS	1				8.4180		2:1	8.3339	8.5021	0.1188	50	30-61-35-63-30-69
G5454	CUBIC METERS	1				8.2432	2%	2:1	8.1608	8.3256	0.1213	50	30-60-37-61-30-75
G5510	42 GAL/BARREL	1				2.6777		1:1	2.651	2.7044	0.3735	40	33-54-33-54

## M-60 (new style) & M-80

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G6120	US GAL	10				1.0000		1:1	0.9900	1.0100	1.0000	10	59-59
G6122	US GAL	1				0.9830	2%	1:1	0.9732	0.9928	1.0172	10	59-58
G6211	IMP GAL	10				1.1852		1:1	1.1734	1.1970	0.8438	10	54-64
G6222	IMP GAL	10				1.1750	2%	1:1	1.1633	1.1867	0.8510	20	40-47-47
G6312	CUBIC METERS	1				13.2944		2:1	13.1615	13.4273	0.0752	50	34-63-28-75-28-75
G6410	DEKALITERS/GAL	10				2.6667		1:1	2.6401	2.6933	0.375	40	37-60-37-60
G6512	42 GAL/BARREL	1				4.1800		1:1	4.1382	4.2218	2.3924	40	30-57-30-66

## MS-120

Part #	Units of Measure	Units per Rev	Range		Used With	Ratio	Special Notes	P/G Ratio	Ratio		Recip Check	Pat #	Gear & POS # A-B-C-D-E-F
			High	low					Min	Max			
G7110	US GAL	10				0.3947		1:1	0.3908	0.3986	2.5333	20	76-43-30
G7111	US GAL	10			TVC	0.3947		1:1	0.3908	0.3986	2.5333	30	76-43-43-30
G7112	US GAL	10				0.3866	2%	1:1	0.3828	0.3904	2.5866	20	75-29-29
G7113	US GAL	10			TVC	0.3866	2%	1:1	0.3828	0.3904	2.5866	30	75-29-29-29
G7210	IMP GAL	10				0.4746		1:1	0.4699	0.4793	2.1070	20	59-28-28
G7211	IMP GAL	10			TVC	0.4746		1:1	0.4699	0.4793	2.1070	30	59-44-44-28
G7213	IMP GAL	10				0.4638	2%	1:1	0.4592	0.4684	2.1563	20	69-40-32
G7214	IMP GAL	10			TVC	0.4638	2%	1:1	0.4592	0.4684	2.1563	30	69-40-40-32
G7242	CUBIC METERS	1				5.2232		2:1	5.171	5.2754	0.1915	40	35-75-32-78
G7243	CUBIC METERS	10				5.1188	2%	2:1	5.0677	5.1699	0.1954	40	30-63-32-78
G7270	DEKALITERS/GAL	10				1.0435		1:1	1.0331	1.0539	0.9583	20	46-50-48
G7271	DEKALITERS/GAL	10				1.0227	2%	1:1	1.0125	1.0329	0.9778	20	44-40-45
G7300	42 GAL/BARREL	1				1.6579		1:1	1.6414	1.6744	0.6032	20	38-45-63



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