

Section Four

Meter and Pulser Assemblies

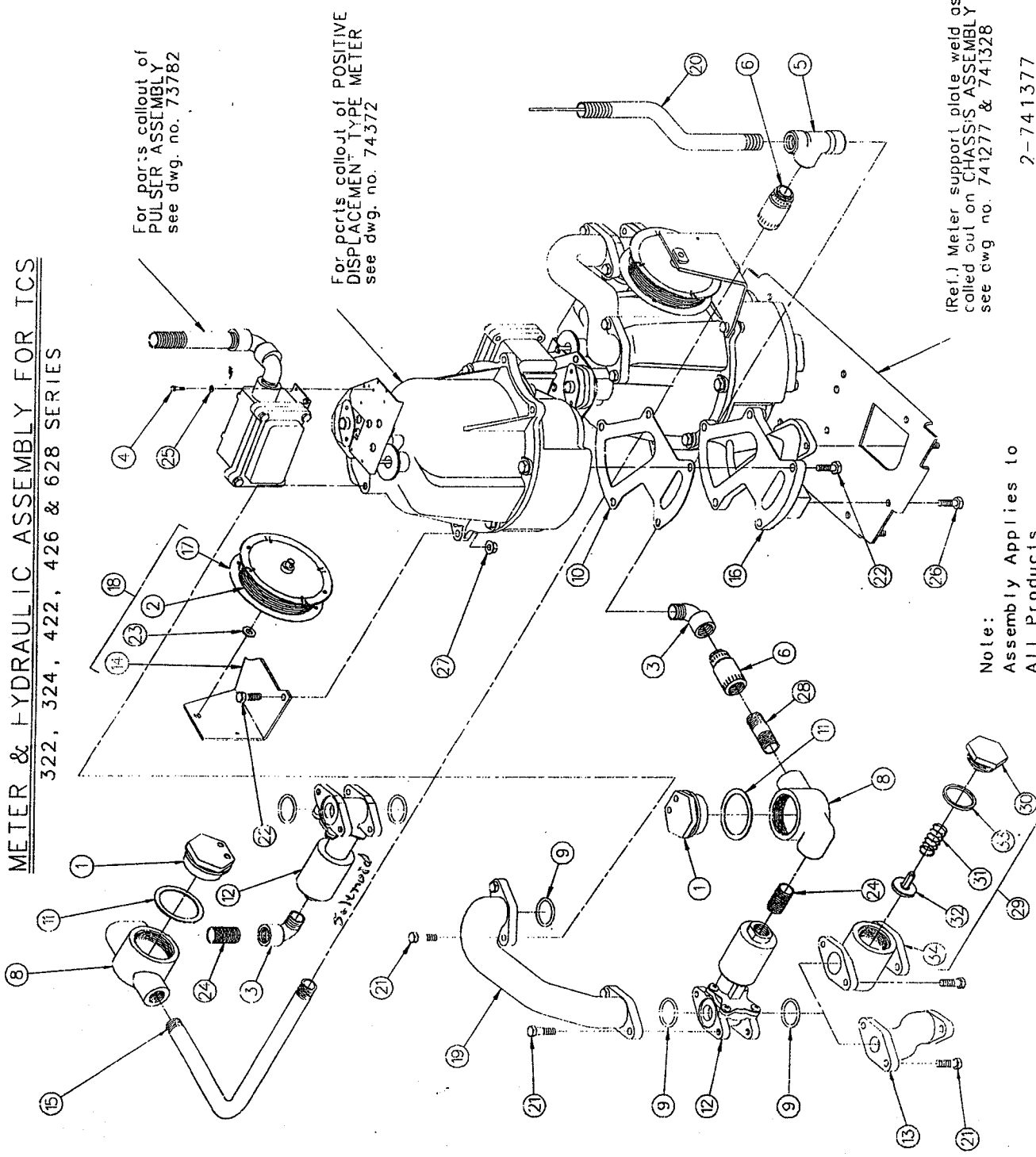
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P=Product

METER & HYDRAULIC ASSEMBLY FOR TCS
322, 324, 422, 426 & 628 SERIES



For parts callout of
 PULSAR ASSEMBLY
 see dwg. no. 73782

For parts callout of POSITIVE
 DISPLACEMENT TYPE METER
 see dwg. no. 74372

(Ref.) Meter support plate weld assy.
 called out on CHASSIS ASSEMBLY
 see dwg no. 741277 & 741328

Note:
 Assembly Applies to
 All Products

2-741377

2-741377

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METER & HYDRAULICS ASSEMBLY FOR TCS 322, 324, 422, 426 & 628 SERIES

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-19167	Connection Box Cover	20	421111-3	Wire Harness Assembly (322, 324, 422, 426 & 628)
2	4-126976	Cable (98" Long)	21	35-50361	5/16-18 x 1" Long Hex Head Cap Screw
3	1-128035	1/2" x 90° Conduit Street Elbow	22	296-50361	5/16-18 x 1-1/8" Long Hex Head Cap Screw
4	1-130465	#6-32 x 3/8" Long Hex Slot Head Thread Cutting Screw	23	08-50621	5/16" Plain Washer
5	1-217337	Conduit Tee	24	01-50710	Conduit Nipple
6	1-218941	Expansion Union (M-F)	25	03-50761	#6 Lockwasher
8	1-229409	Splice Box	26	35-54742	5/16-18 x 5/8" Long M-F Hex Head Whiz-Lock Screw
9	13-313235	Gasket	27	02-54752	5/16-18 M-F Flange Whiz-lock Nut
10	1-38082	Meter Transfer Body Gasket	28	26-50710	1/2 x 3" Long Conduit Nipple
11	2-313235	Gasket	29	229288-1	Check Valve Assembly (Includes Item #30, 31, 32, 33 & 34) 422-R-V
12	<u>Control Valve</u>		30	1-120731	Check Valve Cap
	1-319410	110 Volt	31	1-120733	Poppet Spring
	2-319410	220 Volt	32	213168-1	Poppet Disc & Relief Valve Assembly
	3-319410	Rebuild Kit	33	6-313235	Check Valve Cap Gasket
13	1-317421	Solenoid Valve Outlet (All Models Except 422-R-V)	34	1-418686	Check Valve NLA
14	<u>Reel Bracket Weld Assembly</u>				
	317466-1	All Models Except Listed Below			
	318885-1	45" & 60" Electronic Blender			
15	1-318310	Conduit			
16	2-406857	Meter Transfer Body			
17	410796-2	Cable Reel Assembly (Model 826A)			
18	410796-22	Reel Assembly (Includes Item #2, 14, 17 & 23)			
19	1-418064	Meter Discharge (322, 324, 422, 426, 628)			

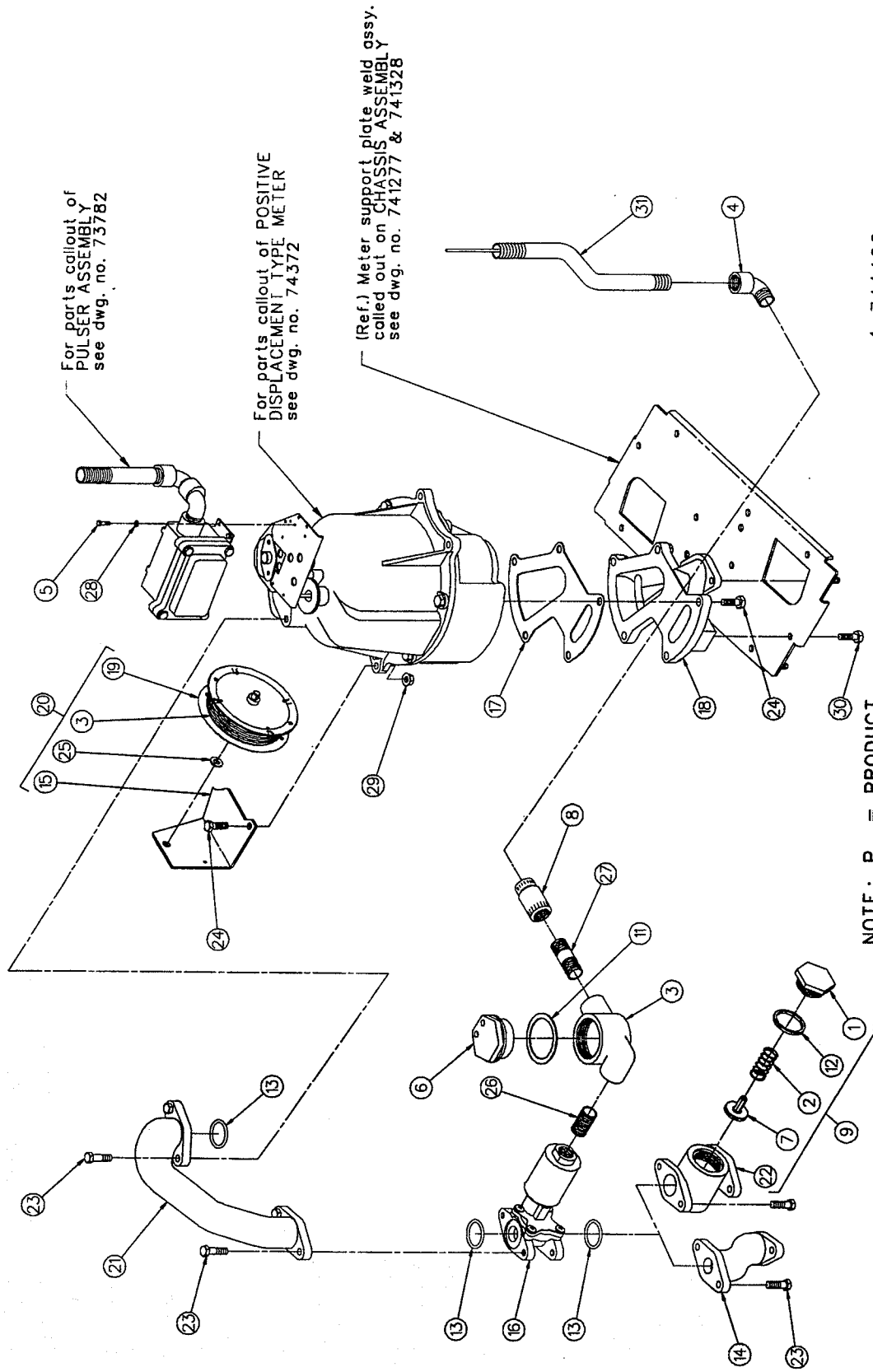
Note:

Assembly applies to all product fueling points for models 322, 324, 422, 426 & 628 series.

2-741377

METER & HYDRAULIC ASSEMBLY FOR TCS

311 P.1, 312 P.1, 411 P.1, 413 P.1, 413 P.1, 614 P.1 & 3



1-741496
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**METER & HYDRAULICS ASSEMBLY FOR TCS
311 P.I., 312 P.I., 411 P.I., 413 P.I. & 614 P.I. & 3**

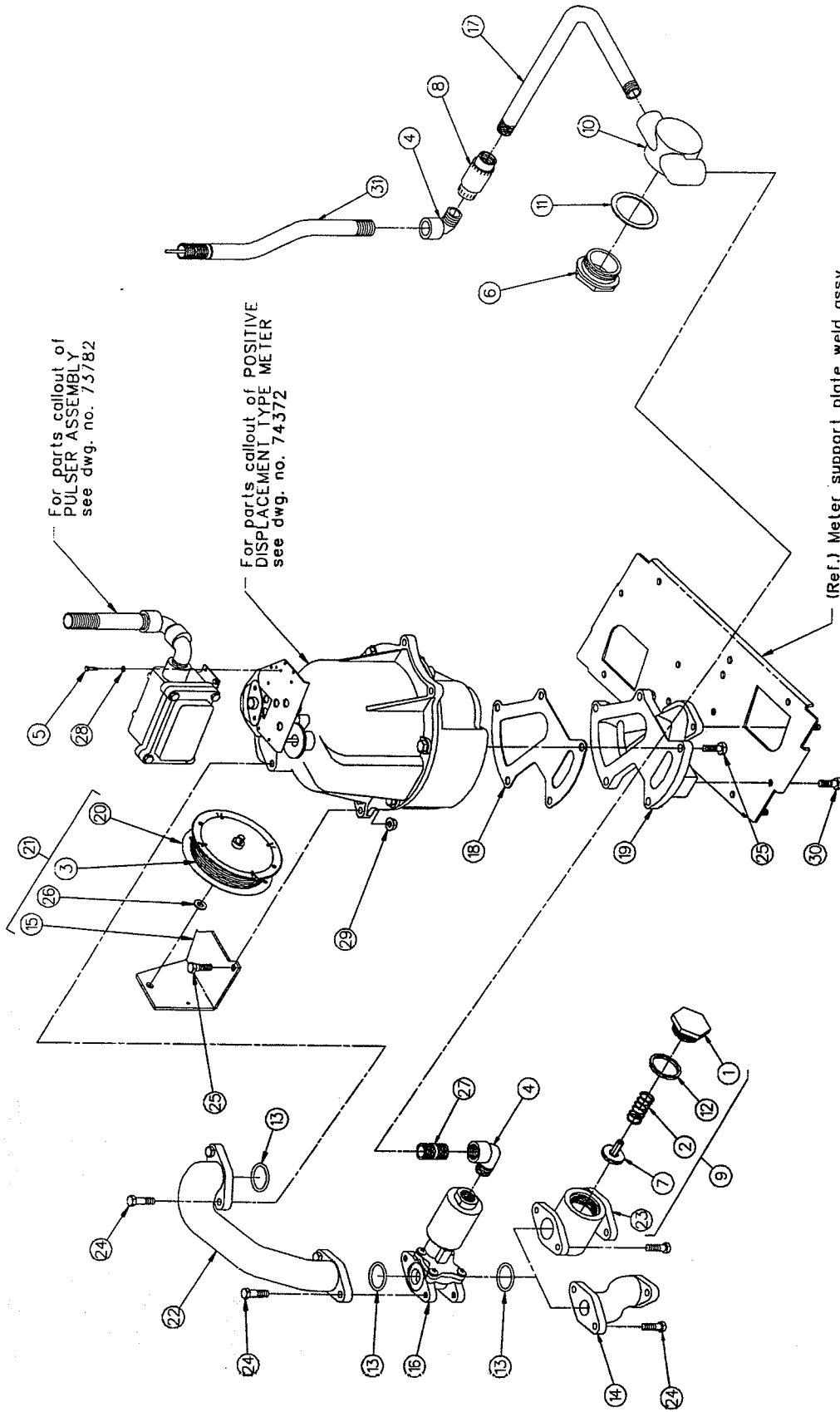
ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-120731	Check Valve Cap	19	410796-2	Cable Reel Assembly (Model 826A)
2	1-120733	Poppet Spring	20	410796-22	Reel Assembly (Includes Item #3, 15, 19 & 25)
3	4-126976	Cable (98" Long)	21	1-418064	Meter Discharge
4	1-128035	1/2" x 90° Conduit Street Elbow	22	1-418686	Check Valve
5	1-130465	#6-32 x 3/8" Long Hex Slot Head Thread Cutting Screw	23	35-50361	5/16-18 x 1" Long Hex Head Cap Screw
6	1-19167	Connection Box Cover	24	296-50361	5/16-18 x 1-1/8" Long Hex Head Cap Screw
7	213168-1	Poppet Disc & Relief Valve Assembly	25	08-50621	5/16" Plain Washer
8	1-219892	Expansion Union (F-F)	26	01-50710	Conduit Nipple
9	229288-1	Check Valve Assembly (Includes Item #1, 2, 7, 12 & 22) 411-R-V	27	26-50710	1/2" x 3" Long Conduit Nipple
10	1-229409	Splice Box	28	03-50761	#6 Lockwasher
11	2-313235	Gasket	29	02-54752	5/16-18 M-F Flange Whiz-lock Nut
12	6-313235	Check Valve Cap Gasket	30	35-54742	5/16-18 x 5/8" Long M-F Hex Head Whiz-lock Screw
13	13-313235	Gasket			
14	1-317421	Solenoid Valve Outlet (All Models Except 411-R-V)	31	421111-1	Wire Harness Assembly (311, 312, 411, 413 & 614)
15	Reel Bracket Weld Assembly				
	317466-1	All Models Except Listed Below			
	318885-1	45" Electronic Blender			
16	Control Valve	Skinner (Honeywell) ^{now Parker}			
	1-319410	110 Volt			
	2-319410	220 Volt			
	3-319410	Rebuild Kit			
17	1-38082	Meter Transfer Body Gasket			
18	2-406857	Meter Transfer Body			

Note: P. = Product

1-741496

METER & HYDRAULIC ASSEMBLY FOR TCS

312 P.2, 411 P.2 & 3, 413 P.2 & 3, 614 P. 2 & 4



NOTE: P. = PRODUCT

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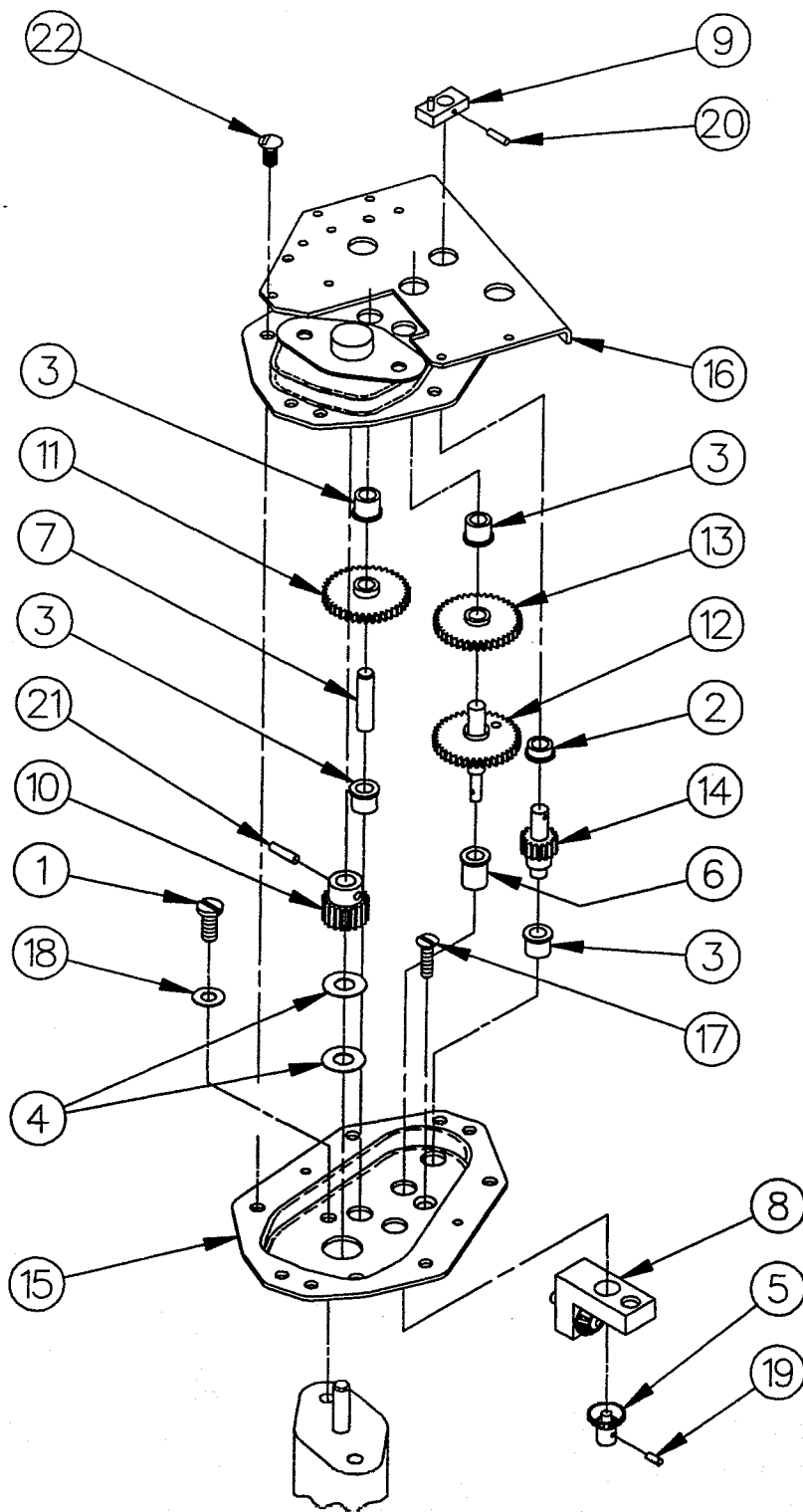
**METER & HYDRAULICS ASSEMBLY FOR TCS
312 P.2, 411 P.2 & 3, 413 P.2 & 3, 614 P.2 & 4**

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-120731	Check Valve Cap	17	1-318310	Conduit
2	1-120733	Poppet Spring	18	1-38082	Meter Transfer Body Gasket
3	4-126976	Cable (98" Long)	19	2-406857	Meter Transfer Body
4	1-128035	1/2" x 90° Conduit Street Elbow	20	410796-2	Cable Reel Assembly (Model 826A)
5	1-130465	#6-32 x 3/8" Long Hex Slot Head Thread Cutting Screw	21	410796-22	Reel Assembly (Includes Item #3, 15, 20 & 26)
6	1-19167	Connection Box Cover	22	1-418064	Meter Discharge
7	213168-1	Poppet Disc & Relief Valve Assembly	23	1-418686	Check Valve
8	1-219892	Expansion Union (F-F)	24	35-50361	5/16-18 x 1" Long Hex Head Cap Screw
9	229288-1	Check Valve Assembly (Includes Item #1, 2, 7, 12 & 22) 411-R-V	25	296-50361	5/16-18 x 1-1/8" Long Hex Head Cap Screw
10	1-229409	Splice Box	26	08-50621	5/16" Plain Washer
11	2-313235	Gasket	27	01-50710	Conduit Nipple
12	6-313235	Check Valve Cap Gasket	28	03-50761	#6 Lockwasher
13	13-313235	Gasket	29	02-54752	5/16-18 M-F Flange Whiz-lock Nut
14	1-317421	Solenoid Valve Outlet (All Models Except 411-R-V)	30	35-54742	5/16-18 x 5/8" Long M-F Hex Head Whiz-Lock Screw
15	<u>Reel Bracket Weld Assembly</u>		31	421111-2	Wire Harness Assembly (312, 411, 413 & 614)
	317466-1	All Models Except Listed Below			
	318885-1	45" Electronic Blender			
16	<u>Control Valve</u>	= Skinner Valve			
	1-319410	110 Volt			
	2-319410	220 Volt			
	3-319410	Rebuild Kit			

Note: P. = Product

1-741495

GEAR TRAIN ASSEMBLY FOR TCS

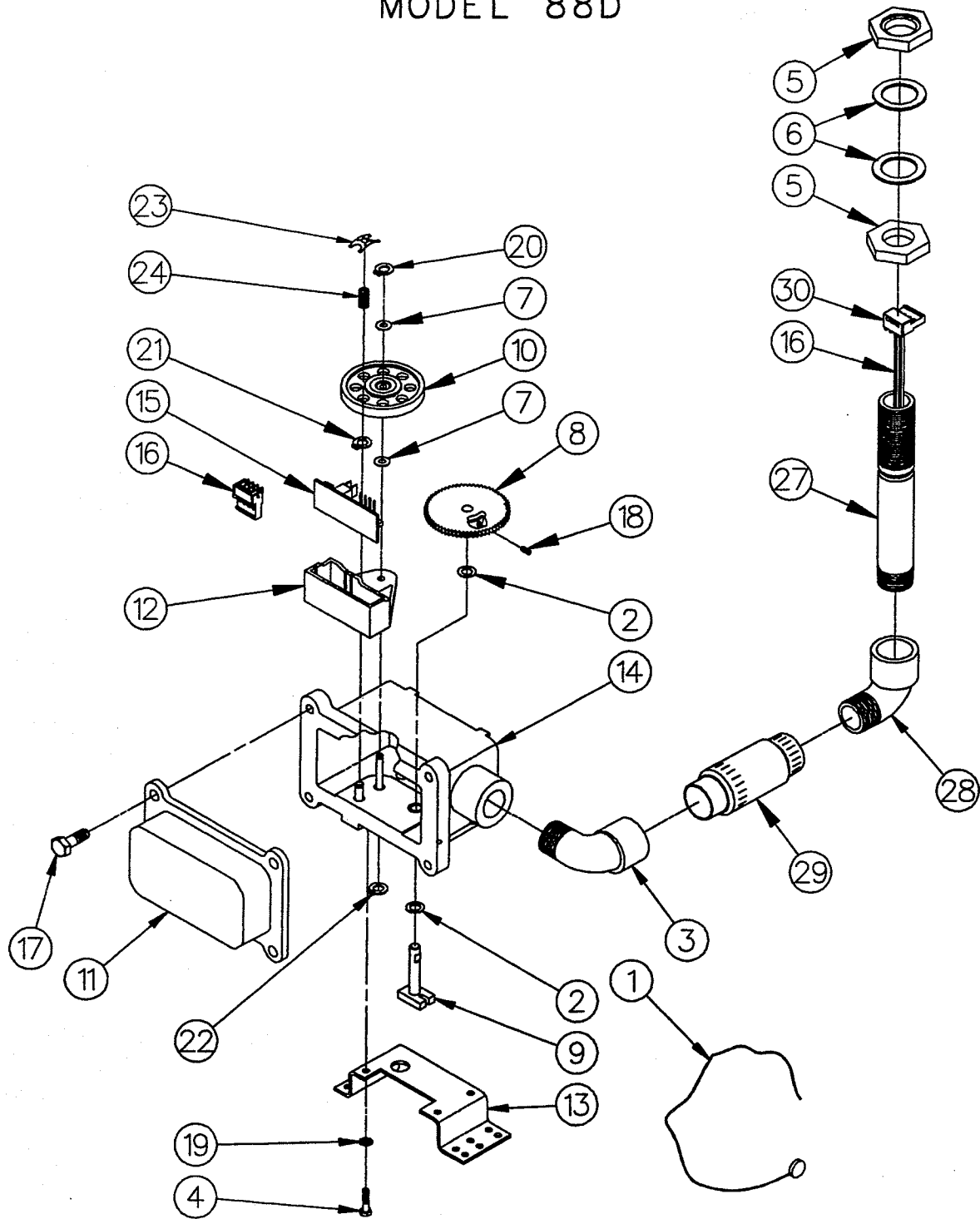


GEAR TRAIN ASSEMBLY FOR TCS

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-114401	#12-24 Special Screw	16	<u>Upper Gear Box Plate Assembly</u>	
2	1-117885	Gear Box Bushing			(Includes Item #2 & 3)
3	1-117901	Gear Box Bushing		314317-6	Gallons
4	1-122316	Washer (Not Used On Liters)		314317-9	Liters
5	1-130195	Gear			
6	1-130234	Gear Box Bushing	17	176-50011	#8-32 x 5/8" Long Flat Head Machine Screw
7	1-130280	Idler Shaft	18	24-50761	#12 Lockwasher
8	<u>Gear Block Assembly</u>		19	08-51221	1/16" Dia x 1/4" Long Groove Pin
	224992-3	Liters	20	09-51221	1/16" Dia x 3/8" Long Groove Pin
	224992-10	Gallons	21	40-51221	1/8" Dia x 1/2" Long Groove Pin
9	225042-1	Coupling Half Assembly	22	<u>#10-24 x 3/8" Long Sems Fastener Unit</u>	
10	<u>Meter Pinion</u>			23-52721	Round Head (Gallons)
	1-225133	Gallons		21-55431	Phillips Pan Head (Liters)
	1-225756	Liters		For complete Gear Train Assembly without Cover Assembly order:	
11	<u>Idler Gear Assembly</u>			410058-26	Gallons
	225136-1	Gallons		410058-31	Liters
	225136-2	Imperial Gallons		For complete Gear Train Assembly with Cover Assembly order:	
	225136-3	Liters		415282-13	Gallons
12	<u>Totalizer Gear Assembly</u>			415282-19	Liters
	225138-1	Gallons			
	225138-3	Imperial Gallons			
	225138-4	Liters			
13	<u>Gear Assembly</u>				
	225140-1	Gallons			
	225140-2	Imperial Gallons			
	225140-3	Liters			
14	<u>Pulser Gear Assembly</u>				
	225142-1	Gallons			
	225142-2	Liters			
15	<u>Lower Gear Box Plate Assembly</u>				
		(Includes Item #3 & 6)			
	311074-29	Gallons			
	311074-34	Liters			

2-73780

PULSER ASSEMBLY FOR TCS MODEL 88D



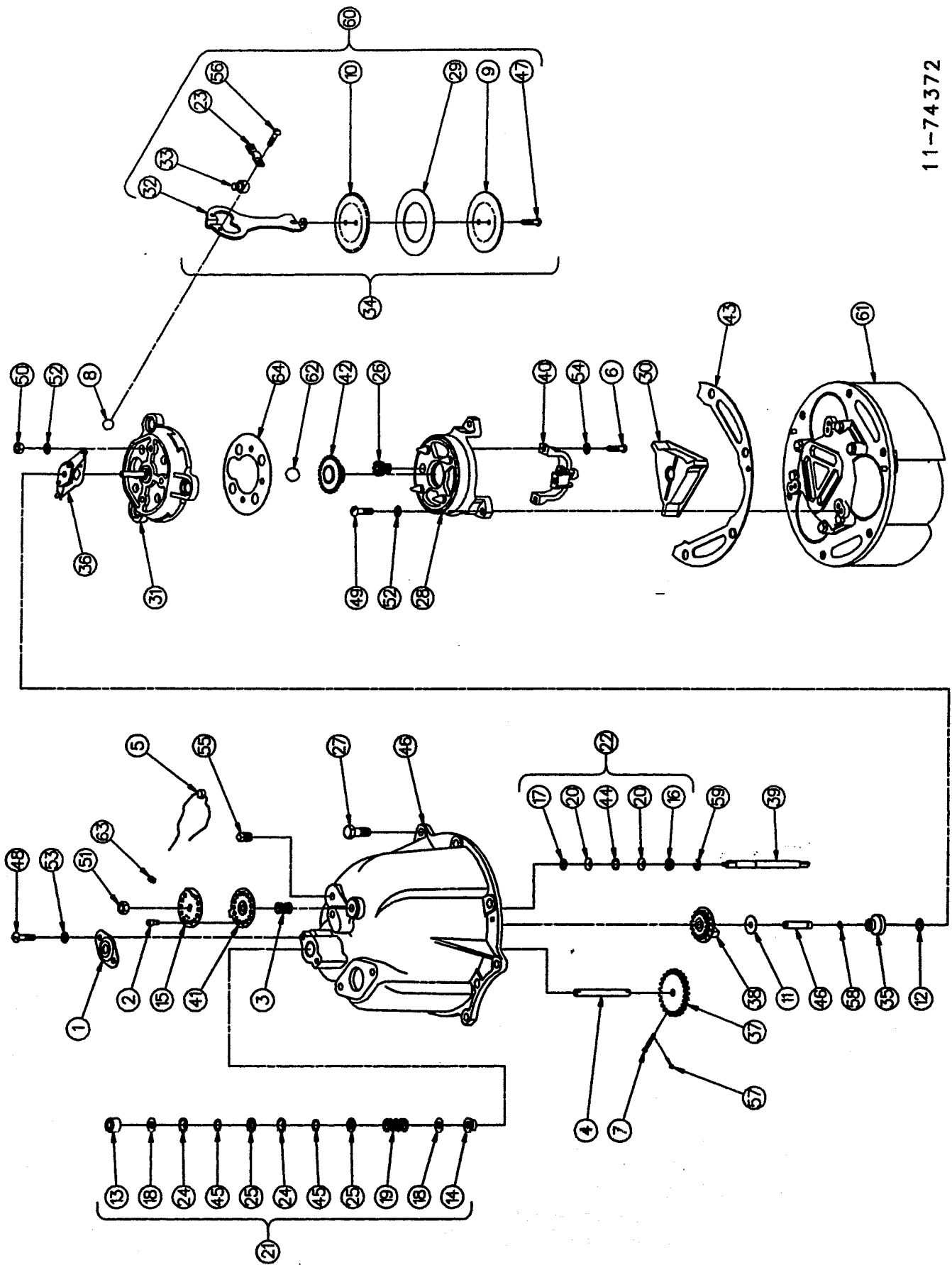
3-73782

PULSER ASSEMBLY FOR TCS

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-120282	Seal Wire & Seal (16" Long)	26	231052-1	Pulser Kit (Includes Items #1, 20, 23, 24 & 25)
2	1-126182	Washer			
3	1-128035	1/2" x 90° Conduit Street Elbow			
4	1-130465	#6-32 x 3/8" Long Hex Slotted Head Thread Cutting Screw	27	<u>Pulser Conduit</u>	
5	1-130590	Conduit Nut		1-228629	All Except Listed Below
				3-228629	Mobil With 45° Elbow
6	1-130613	Conduit Washer	28	<u>Conduit Street Elbow</u>	
7	1-131508	Washer		1-128034	1/2" x 45°
8	1-228106	Gear		1-128035	1/2" x 90°
9	228114-1	Shaft Assembly			
10	228154-1	Disc & Bearing Assembly	29	1-219892	1/2" Expansion Union (Male-Female)(Mobil With 45° Elbow Only)
11	1-316688	Pulser Box Cover			
12	1-317097	Sensor Housing			
13	<u>Box Support</u>		30	<u>Order Both Parts</u>	
	1-317099	All Except Mobil		17-226779	Connector
	1-318916	Mobil		6-227896	Strain Relief Cover
14	317101-1	Pulser Box & Bearing Assembly		<u>For complete Pulser Assembly order:</u>	
15	417694-1	Pulser Board Assembly		417759-1	All Except Listed Below
				417759-2	Mobil With 45° Elbow
				417759-10	Mobil
16	<u>When Ordering Both Parts Are Required</u>				
	317473-1	Wire Harness Assembly			
	1-225661	Wire Spacer			
17	03-50361	1/4-20 x 3/4" Long Hex Head Cap Screw			
18	20-50721	#6-32 x 1/4" Long Hex Socket Headless Cup Point Set Screw			
19	03-50761	#6 Shakeproof Lockwasher			
20	04-52482	Truarc Retaining Ring			
21	03-52920	Truarc Retaining Ring			
22	07-52922	Truarc Retaining Ring			
23	1-132479	Pushnut (Pulser Kit)			
24	4-317420	Spring (Pulser Kit)			
25	1-319219	Installation Instructions (Not Shown - For Pulser Kit)			

3-73782

898 POSITIVE DISPLACEMENT TYPE METER



11-74372

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898 POSITIVE DISPLACEMENT TYPE METER

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-19592	Packing Gland Plate	36	221403-1	Slack Spring Assembly
2	1-19602	Seal Pin	37	Drive Shaft Gear	
3	1-19743	Compensator Screw Spring	1-222081	Gallons & Liters	
4	1-114815	Drive Shaft	217195-2	Assembly (Imperial Gallons)	
5	1-118849	Seal & Seal Wire (6" Long)	38	Counter Drive Gear Complete	
6	1-119064	Special Screw	218556-2	Imperial Gallons	
7	1-124144	Drive Shaft Pin	1-222084	Gallons	
8	1-124588	1/2" Ball	1-232282	Liter	
9	1-125069	Plunger Cup Support	39	1-224081	Compensator Shaft
10	1-125071	Plunger Disc	40	224709-5	Bracket & Pin Assembly
11	1-125095	Washer	41	1-226085	Index Plate
12	1-125103	Washer	42	125079-1	Main Pivot Assembly
13	125118-1	Upper Bearing Assembly	43	1-38083	Meter Body Gasket
14	125154-1	Bearing Assembly	44	5-318940	"O" Ring (.362 Dia.)
15	1-125243	Compensator Index Disc	45	6-318940	"O" Ring (.487 Dia.)
16	1-125308	Seal Half	46	420557-1	Meter Cover And Gear Post Assy
17	1-125309	Seal Wedge	47	287-50001	#10-32 x 3/8" Long Round Head Machine Screw
18	1-125315	Washer	48	326-50001	#12-24 x 1/2" Long Round Head Machine Screw
19	1-125357	Packing Spring	49	399-50001	1/4-20 x 3/4" Long Round Head Machine Screw
20	1-125360	Seal	50	01-50301	Machine Screw
21	125420-1	Meter Drive Shaft Packing Kit	51	02-50301	1/4-20 Hex Nut
22	125478-1	Compensator Shaft Seal Kit	52	13-50641	5/16-18 Hex Nut
23	1-125966	Bearing Retainer	53	24-50761	1/4" Lockwasher
24	1-126898	Seal (Black)	54	42-50761	#12 Lockwasher
25	1-126902	Seal Retaining Ring	55	01-51911	#14 Lockwasher
26	1-129607	Compensator Pinion	56	28-55431	1/8" Square Head Pipe Plug
27	65-50361	3/8-16 x 1" Long Hex Head Cap Screw	57	13-52870	#10-32 x 3/8" Long Phillips Pan Head Sems Fastener
28	218236-2	Main Pivot Bracket Assy & Pins	58	10-52922	1/16" Dia x 1/4" Long Cotter Pin
29	218769-1	Plunger Cup Kit (Set Of 3 Cups)	59	12-53420	Truarc Retaining Ring
30	1-219330	Valve			Truarc "E" Retaining Ring
31	219331-1	Wobble Plate With Slack Roller Post			
32	1-219377	Connector			
33	1-219378	Bearing Seat			
34	219407-2	Plunger Assembly			
35	219800-1	Slack Roller Assembly			
60	232332-1	Plunger Kit (Contains Plunger Assembly, Bearing Retainer, Bearing Seat & Sems Fastener)			
61	407488-11	Body & Seat Assembly With Pins			
62	1-130905	5/8" Carbon Ball			
63	04-50600	Washer			
64	1-217934	Wobble Bearing Plate			

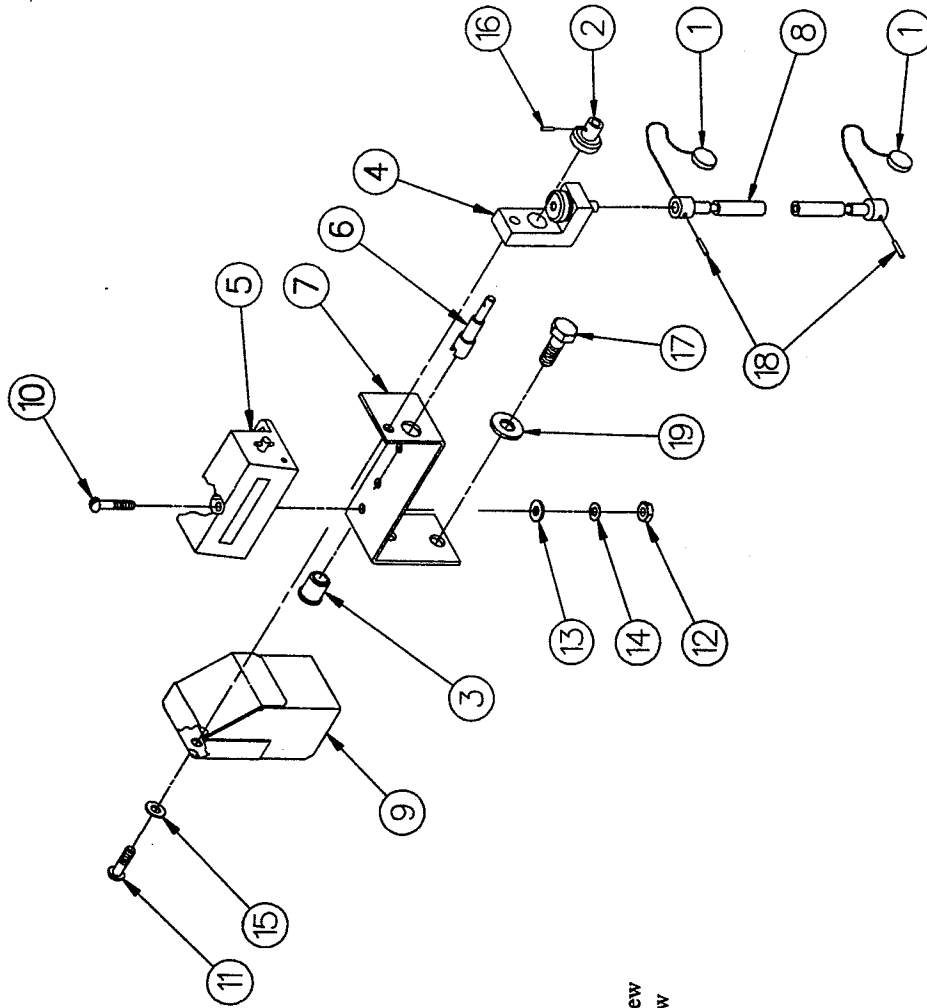
For complete Meter Cover Assembly order:
(Item no. 5 & 46 not included)
407494-1 Gallons
407494-5 Imperial Gallons
415282-30 Liters

For complete Final Assembly (898-K Meter) order:
407726-10 Gallons
416873-25 Imperial Gallons
416873-32 Liters

11-74372

TOTALIZER ASSEMBLY FOR TCS

(SERIAL NO. 107-11826 & BELOW)



ITEM NO.	PART NO.	DESCRIPTION
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- | | | |
|---|-----------|---------------------|
| 1 | 1-131438 | Seal Wire & Seal |
| 2 | 1-130195 | Gear |
| 3 | 1-131468 | Gear Box Bushing |
| 4 | 224992-10 | Gear Block Assembly |

- | | | |
|---|---------------------------|----------------------------------|
| 5 | Totalizer Assembly | |
| | 227470-2 | No Longer Available Use 1-230837 |
| | 227470-3 | No Longer Available Use 3-230837 |
| | 1-230837 | Gallon |
| | 3-230837 | Liter |

- | | | |
|----|-----------|---|
| 6 | 1-227752 | Totalizer Drive Shaft |
| 7 | 1-229438 | Totalizer Bracket |
| 8 | 2-317004 | Drive Cable |
| 9 | 318130-1 | Totalizer Cover Assembly |
| 10 | 97-50001 | #6-32 x 9/16" Long Round Head Machine Screw |
| 11 | 174-50001 | #8-32 x 1/2" Long Round Head Machine Screw |
| 12 | 03-50211 | #6-32 Hex Nut |
| 13 | 03-50621 | #6 Plain Washer |
| 14 | 03-50761 | #6 Lockwasher |
| 15 | 22-50761 | #8 Lockwasher |
| 16 | 08-51221 | 1/16" Dia x 1/4" Long Groov-Pin |
| 17 | 10-51491 | #14 x 1/2" Long P.K. Self Tapping Screw |
| 18 | 04-52901 | 1/16" Dia x 3/8" Long Roll Pin |
| 19 | 07-50621 | Plain Washer |

For complete Totalizer Assembly order. (Includes Drive Cable)

- | | |
|----------|---------|
| 227927-2 | Gallons |
| 227927-3 | Liters |

3-73781

3-73781

REFERENCE ONLY

TOTALIZER ASSEMBLY FOR TCS (SERIAL NO. 107-11827 & ABOVE)

Item No.	Part No.	Name Of Part
1	1-131438	Seal Wire & Seal (8" Long)
2	1-230837	Totalizer Counter (Gallon)
3	3-230837	Totalizer Counter (Liter)
4	2-317004	Drive Cable 1 Rev/Gallon
5	10-51491	#14 x 1/2" Long P.K. Self Tapping Screw
6	04-52901	Roll Pin
	07-50621	Plain Washer

For complete Totalizer Assembly order:
(Items 1 & 4 not included)
227927-2 Gallons
227927-3 Liters

