SECTION H: FISHERTECH RENEWAL PARTS SALES AND SERVICE

Fishertech provides an extensive list of services available to you following the installation of your Injected Metal Assembly system.

Renewal Parts

Fishertech maintains an extensive inventory of genuine IMA renewal parts, designed and built exclusively for your system. Reference drawings for the most common renewal parts for the system are contained in this section.
For more information about renewal parts or to place an order, please contact us at:

tel: **+1 (705) 748-9522**

fax: **+1 (705) 748-6312**

E-mail: **renewalparts@fishertech.com**

Service and Training

Fishertech offers various service and training options to help you ensure that your IMA system will continue to operate at the levels of productivity and quality achieved when the system was first installed at your company.

Troubleshooting Hotline

A no-charge, troubleshooting hotline gets you directly in contact with a Fishertech technical representative. Call:

Hotline: **+1 (705) 748-9544, Ext. 2487**

Emergency Service Response

A staff of technical representatives are available to quickly respond to emergency service requests. In most cases, we can be on-site within 24 hours of your call. Call:

Hotline: **+1 (705) 748-9544, Ext. 2487**

Service and Maintenance Contracts

A Service and Maintenance Contract provides you with the confidence that your IMA system will continue to operate at the productivity and quality levels you expect. A regular tune-up by a Fishertech technical representative will improve the operation of your system and problems can often be identified before they impact your productivity. Contact us for details about a Service and Maintenance Contract structured specifically for your operation and equipment.

Training

A training session conducted at your facility by a Fishertech technical representative, will provide your personnel with the knowledge required to operate and maintain your IMA system efficiently and safely.
For more information, contact us at:

tel: **+1 (705) 748-9522**

Hotline: **+1 (705) 748-9544, Ext. 2487**

fax: **+1 (705) 748-6312**

E-mail: **service@fishertech.com**

IMA Renewal Parts Order Numbers Cross-reference

On August 31, 1998, Fishertech launched a new business system called MFG/PRO. As a result,
our renewal parts are now identified with new numbers. This sheet lists the most common IMA renewal parts with a cross-reference from our OLD PART numbers to our NEW PART numbers.

If the part you are looking for does not appear on this sheet, please contact us at:

tel: **+1 (705) 748-9522**

fax: **+1 (705) 748-6312**

E-mail: **renewalparts@fishertech.com**

DESCRIPTION	OLD PART #	NEW PART #
Adjustable Block	3500B8722	35008722
Air Cylinder	C2043M0112	0151570
Amplifier	C1141E9105	0151000
Cap	24H723	24723
Cap - split die	3500B2715	35002715
Cap Retainer	2500A1918	25001918
Clevis	94196	10704P2
Connector - male to female	C1013A0206	0150222
Contactor – 110V, 60Hz, 20A	C1104A3203	0150855
Crank Pin	95054	30712
Cylinder - 1 1/8 inch bore	C2061E2210	0151842
Cylinder - 4 way, 15-140 spt	94468	35007635P2
Cylinder – mod 4 way 1/4 NPT	C2043M0013	25011397
Cylinder Housing	95573	80634
Eccentric Pin	2501A0342	25010342
Ejector Bar	3500B7987	35007987
End Cap – CPM	95585	44058
End Cap - Oph	91015	35007973
Fixed Die	5500C6375	55006375
Flat Faced Fixed Die	97804	55004336
Front Slide	3500B9857	35009857

Gooseneck - ½ inch	94247	15002450G1
Gooseneck - ¾ inch	94412	15002450G2
Gooseneck – 1 inch	94249	15002450G3
Guide Bushing - “A” 1.812 inch	41G443P1	41443P1
Guide Bushing - “B” 2.375 inch	41G443P2	41443P2
Heater Element - large	97973	25010307
Heater Element – small	93848	11095G1
Hinge Block	26H094	26094
Hinge Pin	94801	10023
Hinge Pin - front of die	24H571	24571
Horizontal Cable Housing	81D188	81188
Key	24H726	24726
Lever - new style	94421	31235G1
Lever - old style	95071	30679
Lever Assembly	97982	55005680
Limit Switch	C1147E2128	0159611
Link	97986	25011466
Link Pin	95057	30685
Locating Pin	95664	45239
Lower Links - pair	24H565	24565
Main Slide	5500C4621	5504621
Manifold	50F850	50850

Melt Pot - medium	93801	71335
Melt Pot - small	93849	90296G5
Melt Pot Assembly - medium	97911	90939G3
Nozzle - CPM	97976	35009044
Nozzle - mounted point	94604	35007471
Nozzle - standard lead	94605	35007468
Nozzle - standard zinc	94600	35007470
Nozzle Lap - lead	97041	11311P1
Nozzle Lap - zinc	97042	11311P2
Pin/Sleeve	94115	30790P1
Plunger - ½ inch	94115	30790p1
Plunger - ¾ inch	94411	30827p1
Plunger – 1 inch	97640	35003471p1
Prox. Sensor - upset sensor	97951	15002509G3
Prox. Sensor - upsetter	98041	15003356G1
Push Button – 115V miniature	C1143A2502	151046
Rear Element	93866	50630G2
Rear Links	97067	41532P1
Rear Slide	91061	35009856
Roller Arm	91016	35007972
Seal Plug	97818	25008745
Seat Lap - lead	97035	21370

Seat Lap - zinc	97037	21450p1
Spacers	22H454P245	22454P245
Split Carrier Housing	7500D3767	75003767
Sprue Lap	2501A2126	25012126
Thermo Leads	96695	10656P1
Thermocouple – J type	96400	90952G1
Thermocouple – K type	C1301B4106	0151388
Toggle Arm - main	62F959	62959
Toggle Arm - upper	94858	10027
Toggle - upper	26H093	26093
Twin Torch Tip	51F049	51049
Upper Link	24H566	24566
Y-bracket Assembly	94419	50828G1
Yoke	97983	55005681

COMPOSITION AND PROPERTIES OF ALLOYS

Injected Metal Assembly™ systems and Injected Metal *Fixturing®* systems from Fishertech use only specific high grade zinc alloys because they are strong, versatile, dependable, and cost effective. ZAMAK 3, ZAMAK 5, and ZA-8 are precisely formulated metal alloys that offer the mechanical properties of medium strength metals.

DESIGNATION	ALLOY GROUP	ZINC	ZINC	ZINC-ALUMINUM
	ASTM Designation	AG40A	AC41A	ZA-8 (Die Cast)
	General Designation	Zamak 3	Zamak 5	ZA-8
COMPOSITION PERCENTAGE BY WEIGHT	Al Aluminum	3.5-4.3	3.5-4.3	8.0-8.8
	Cu Copper	0.25 Max	0.75-1.25	0.8-1.3
	Mg Magnesium	0.025-0.05	0.03-0.08	0.015-0.030
	Fe Iron	0.100 Max	0.100 Max.	0.075 Max.
	Pb Lead	0.005 Max.	0.005 Max.	0.006 Max.
	Cd Cadmium	0.004 Max.	0.004 Max.	0.006 Max.
	Sn Tin	0.003 Max	0.0035 Max.	0.003 Max.
	Zn Zinc (balance - assay)	Remainder	Remainder	Remainder
PHYSICAL PROPERTIES	Density			
	lb/in³	0.239	0.240	0.227
	g/cm³	6.60	6.60	6.28
	Melting Range			
	°F	718-728	717-727	707-759
	°C	382-387	380-386	375-404
	Coefficient of Thermal Expansion			
	µin/in/°F	15.2	15.2	13.8
	µm/m/°C	27.4	27.4	25.0
	Thermal Conductivity			
	BTU/ft.hr/°F	65.3	65.3	65.3
	W/m/K	113	113	113
	Electrical Conductivity			
	% IACS	27	27	27.7
	MS/m	63.3	63.3	62.2
	Pattern Shrinkage %	0.7	0.7	0.7

DESIGNATION	ALLOY GROUP	ZINC	ZINC	ZINC-ALUMINUM
	ASTM Designation	AG40A	AC41A	ZA-8 (Die Cast)
	General Designation	Zamak 3	Zamak 5	ZA-8
MECHANICAL PROPERTIES	Tensile Strength			
	psi	43,000	47,000	54,200
	MPa	283	328	374
	Yield Strength (0.2% offset)			
	psi	32,000	33,000	42,600
	MPa	221	228	294
	Compressive Yield Strength (0.1% offset)			
	psi	60,000	87,000	87,000
	MPa	414	600	252
	Elongation			
	% in 2 inches (51 mm)	10	7	3
	Shear Strength			
	psi	31,000	38,000	42,000
	MPa	214	262	276
	Hardness			
	RHN (500/10)	up to 82	up to 91	up to 103
	Charpy Impact Strength			
	ft-lbs.	45	48	31
	J	58	65	42
	Fatigue Strength (rotating beam R/R method)			
	psi	8,000	11,000	17,000
	MPa	47.6	65.5	103

1. Compressive Strength

DESIGNATION	ALLOY GROUP	ZINC	ZINC	ZINC-ALUMINUM
	ASTM Designation	AG40A	AC41A	ZA-8 (Die Cast)
	General Designation	Zamak 3	Zamak 5	ZA-8
INTERNATIONAL ALLOYS REFERENCE	France (AFNOR)	ZA-5	ZA-U1G	ZABU1
	Germany (DIN)	G-ZnAl4 (2.4600)	G-ZnAl4Cu1 (2.4700)	ZnAl8Cu1 (ZA-8)
	Italy (UNI)	G-ZnAl4 (ZA4)	G-ZnAl4Cu1 (ZA4Cu1)	symbol: ZnAl8Cu1
	Japan (JIS)	Class 2	Class 1	symbol: ZnAl8Cu1
	Spain (UNE)	ZGnAl4 (ZnAl4)	ZGnAl4Cu1 (ZnAl4Cu1)	symbol: ZnAl8Cu1
	United Kingdom (BS)	Alloy A	alloy B	ZA-8 (Zinc-Aluminium)
	United States (SAE)	903	925	ZA-8