

EXHIBIT 13

U.S. Patent No. 7,067,944

Claim 3

Aisin Small Pump

Toyota / Aisin Water Pump G9040-33030

"3. A motor comprising:"

3. A motor comprising:

The Toyota / Aisin Water Pump G9040-33030 ("Pump") includes a motor.

The Pump has Aisin part number WQT-002.

O.E. Part #	Manufacturer	AISIN Part #
16120-49046	Toyota	WPT-065
16120-49055	Toyota	WPT-065
16120-49065	Toyota	WPT-084
16120-49080	Toyota	WPT-084
161A0-29015	Toyota	WPT-190
161A0-39015	Toyota	WPT-190
161A0-39025	Toyota	WPT-191
G9040-33030	Toyota	WQT-002
G9040-33040	Toyota	WQT-002
G9040-52010	Toyota	WQT-001
271647-0	Volvo	WPV-802
271855-0	Volvo	WPV-800
271984-0	Volvo	WPV-801
271985-0	Volvo	WPV-800
271985-4	Volvo	WPV-800
271986-0	Volvo	WPV-802
272334-0	Volvo	WPV-803
272334-4	Volvo	WPV-803

Aisin Cooling Catalog 2016.pdf at 145 (hereinafter "Aisin Cooling Catalog"), available at <https://www.aisinaftermarket.com/FlipBook/CoolingCatalog/index.html>.

- Toyota Avalon Hybrid Limited 2.5L L4 – Electric/Gas
- Toyota Camry Hybrid LE 2.5L L4 – Electric /Gas
- Toyota Camry Hybrid SE 2.5L L4 – Electric/Gas
- Toyota Camry Hybrid XLE 2.5L L4 – Electric/Gas

"3. A motor comprising:"

- Toyota RAV4 LE 2.5L L4 – Gas
- Toyota RAV4 Limited 2.5L L4 – Gas
- Toyota RAV4 XLE 2.5L L4 – Gas
- Toyota RAV4 SE 2.5L L4 – Gas
- Toyota RAV4 Hybrid XLE 2.5L L4 – Electric/Gas
- Toyota RAV4 Hybrid Limited 2.5L L4 – Electric/Gas

Source: <http://parts.olathetoyota.com/oe-toyota/g904033030>

Lexus				
ES250	1990-1991	2.5L V6	2VZFE Desig.	WPT-002
ES300	1992-1993	3.0L V6	3VZFE Desig.	WPT-002
	1994-2003	3.0L V6	1MZFE Desig.	WPT-057
ES300h	2013-2015	2.5L L4	2ARFXE Desig.; Engine Water Pump	WPT-191
			2ARFXE Desig.; Inverter Water Pump	WQT-002

"3. A motor comprising:"

Avalon	1995-2004	3.0L V6	1MZFE Desig.	WPT-057
	2005-2014	3.5L V6	2GRFE Desig.	WPT-803
	2013-2015	2.5L L4	2ARFXE Desig.; Hybrid; Engine Water Pump	WPT-191
2ARFXE Desig.; Hybrid; Inverter Water Pump			WQT-002	
Camry	1983-1986	2.0L L4	2SELC Desig.	WPT-097
	1984-1986	1.8L L4	1CTLG Desig.	WPT-004
	1986	2.0L L4	2CTLG Desig.	WPT-004
	1987-1991	2.0L L4	3SFE Desig.; Water Pump w/ Housing	WPTK-010
			3SFE Desig.; Water Pump w/o Housing	WPT-010
	1988-1991	2.5L V6	2VZFE Desig.	WPT-002
	1992-1993	3.0L V6	3VZFE Desig.	WPT-002
	1992-1999	2.2L L4	5SFE Desig.; Water Pump w/ Housing	WPTK-010
			5SFE Desig.; Water Pump w/o Housing	WPT-010
	1994-2006	3.0L V6	1MZFE Desig.	WPT-057
	2000-2001	2.2L L4	5SFE Desig.; Water Pump w/ Housing	WPTK-010
			5SFE Desig.; Water Pump w/o Housing	WPT-010
			5SFNE Desig.; CNG; Water Pump w/ Housing	WPTK-010
	2002-2008	2.4L L4	2AZFE Desig.	WPT-801
	2004-2006	3.3L V6	3MZFE Desig.	WPT-057
	2007-2015	3.5L V6	2GRFE Desig.	WPT-803
	2009	2.4L L4	2AZFE Desig.; Japanese Production; To 01/2009	WPT-801
2AZFE Desig.; North American Production; To 03/2009			WPT-801	
2009-2011	2.4L L4	2AZFXE Desig.; Hybrid	WPT-801	
2010-2014	2.5L L4	2ARFE Desig.	WPT-805	
2012-2015	2.5L L4	2ARFXE Desig.; Hybrid; Engine Water Pump	WPT-191	
		2ARFXE Desig.; Hybrid; Inverter Water Pump	WQT-002	

Aisin Cooling Catalog 2016.pdf at 34, 41.

"3. A motor comprising:"

The Pump's packaging is marked with the Toyota logo:



20160808_151500.jpg

"3. A motor comprising:"

The Pump itself is marked with the Aisin logo:



20160808_151722.jpg

"3. A motor comprising:"

The Pump includes an electric motor. For example, as shown below on the purchase receipt, the Pump is referred to as a pump:

Henry Thomas
OLATHE TOYOTA

685 N. Rawhide
 Olathe, Kansas 66061
 Tollfree: (866) 596-1970 · Phone (913) 780-9919 · Wholesale Parts (913) 782-1370 · Fax (913) 780-5062
 E-mail: parts@olathetoyota.com · Web: www.olathetoyota.com

ALL CLAIMS AND RETURNED GOODS MUST BE ACCOMPANIED BY THIS INVOICE.
 NO RETURNS ON ELECTRICAL OR SPECIAL ORDER PARTS.
 NO RETURNS AFTER 30 DAYS. 20% RE-STOCK CHARGE ON ALL RETURNED PARTS.

DISCLAIMER OF WARRANTIES
 All expressed warranties, if any, by a Manufacturer or supplier other than the Dealer are theirs, not Dealer's, unless otherwise provided in writing on the face of this order or in a separate writing furnished to Customer by Dealer.
ALL PARTS INSTALLED ARE NEW UNLESS SPECIFIED OTHERWISE AS BEING USED OR REMANUFACTURED.

DATE ENTERED 29 JUL 16	YOUR ORDER NO. 16879	DATE SHIPPED 29 JUL 16	INVOICE DATE 29 JUL 16	INVOICE NUMBER 630681
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PREPAID
 ACCOUNT NO. P66

GRIFF NEAL
 707 S. VERMONT ST
 PALATINE, IL 60067

PAGE 1 OF 2

SHIP VIA	SLSM	BIL NO.	TERMS	F.O.B. POINT
FEDX HOME (W/ 377)		415-902-6600		OLATHE, KS

QTY	PART NO.	DESCRIPTION	LIST	NET	AMOUNT
1	89257-30080	16727 1 COMPU	258.92	258.92	258.92
1	80960-0R030	0 MOTOR	481.04	360.78	360.78
	*** ABOVE PART IS PREPAID ***				
1	161A0-39025	0 PUMP	283.25	283.25	283.25
	*** ABOVE PART IS PREPAID ***				
1	161A0-39035	0 PUMP	278.29	208.72	208.72
	*** ABOVE PART IS PREPAID ***				
1	15100-37060	0 PUMP	164.83	123.62	123.62
	*** ABOVE PART IS PREPAID ***				
1	39040-33030	0 PUMP	331.69	248.77	248.77
	*** ABOVE PART IS PREPAID ***				
1	77020-06306	0 TUBE	363.30	363.30	363.30
	*** ABOVE PART IS PREPAID ***				
1	80960-06020	0 MOTOR	445.67	334.25	334.25
	*** ABOVE PART IS PREPAID ***				
		FREIGHT	22.67		

The following parts have been special ordered:

- 1 80960-0R030 MOTOR ASSY
- 1 161A0-39025 PUMP ASSY,
- 1 161A0-39035 PUMP ASSY,
- 1 15100-37060 PUMP ASSY,

PARTS	
SUBLET	
FREIGHT	
SALES TAX	
TOTAL	

CUSTOMER'S SIGNATURE
 X

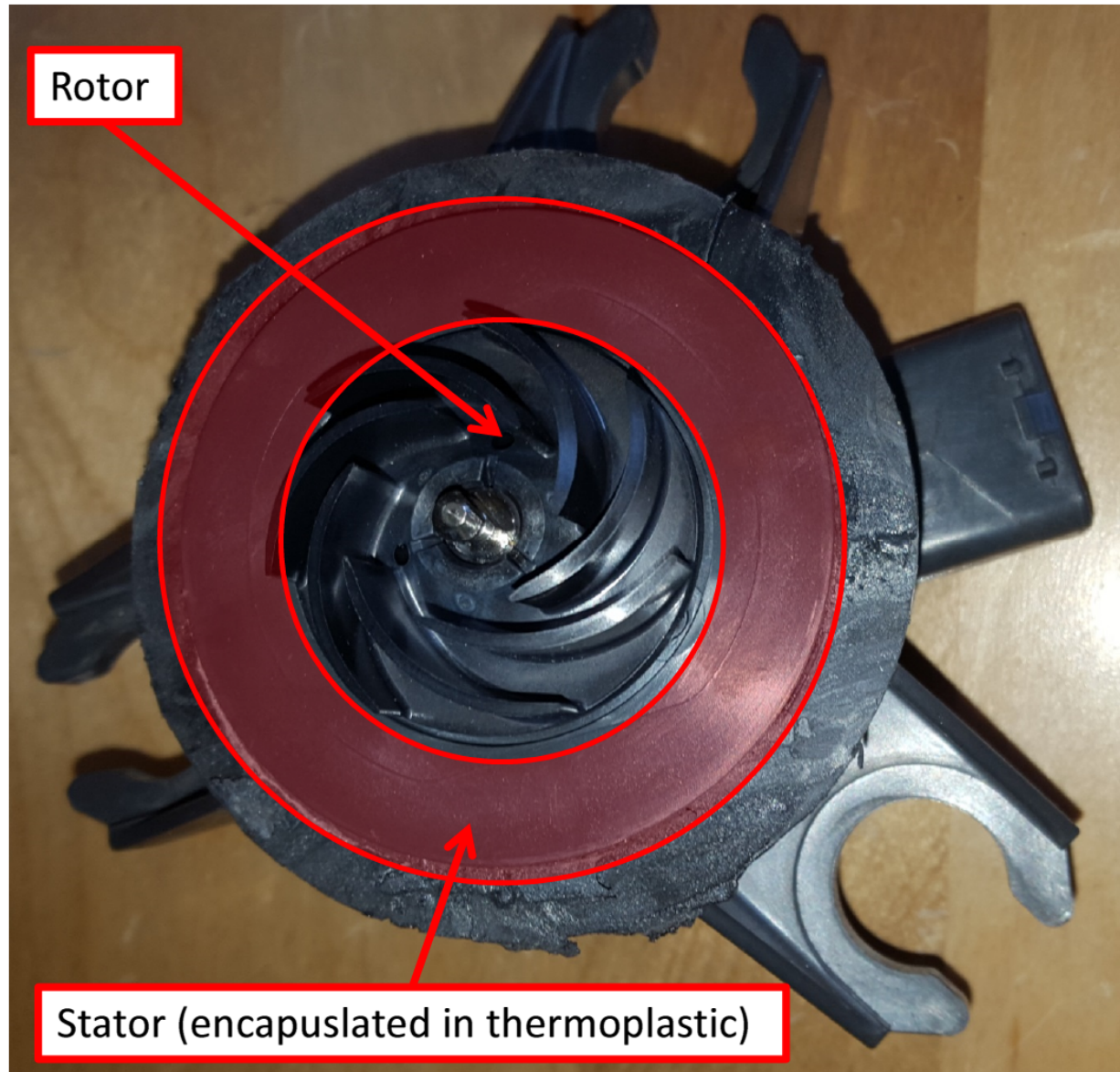
CUSTOMER COPY

Copyright 2014 GM Corp. LLC. PARTS INVOICE/BL/PSCT - 000000

20160808_151445.jpg

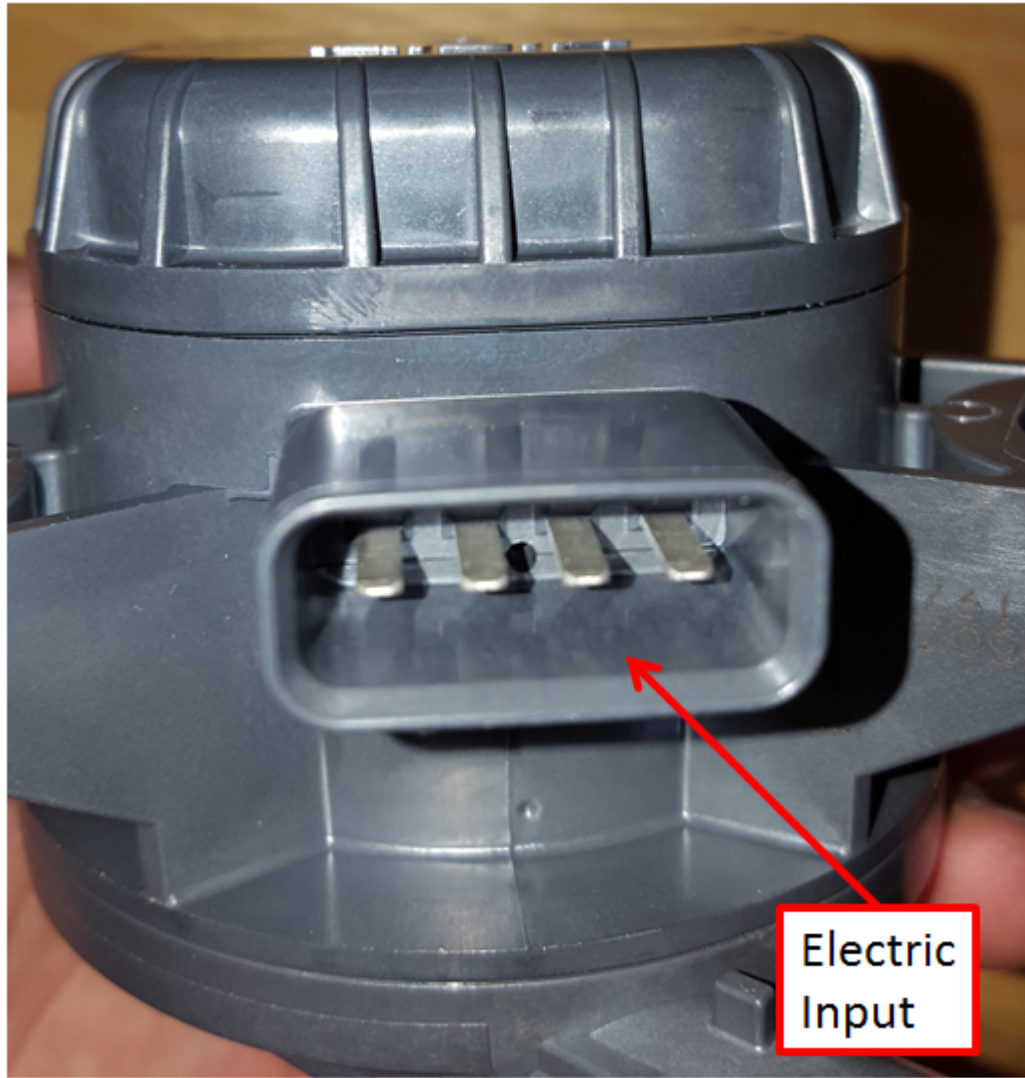
"3. A motor comprising:"

As shown in greater detail below, the Aisin Pump is an electric motor having a stator and a rotor, where the stator is designed to cause the rotor to rotate during operation.



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"3. A motor comprising:"



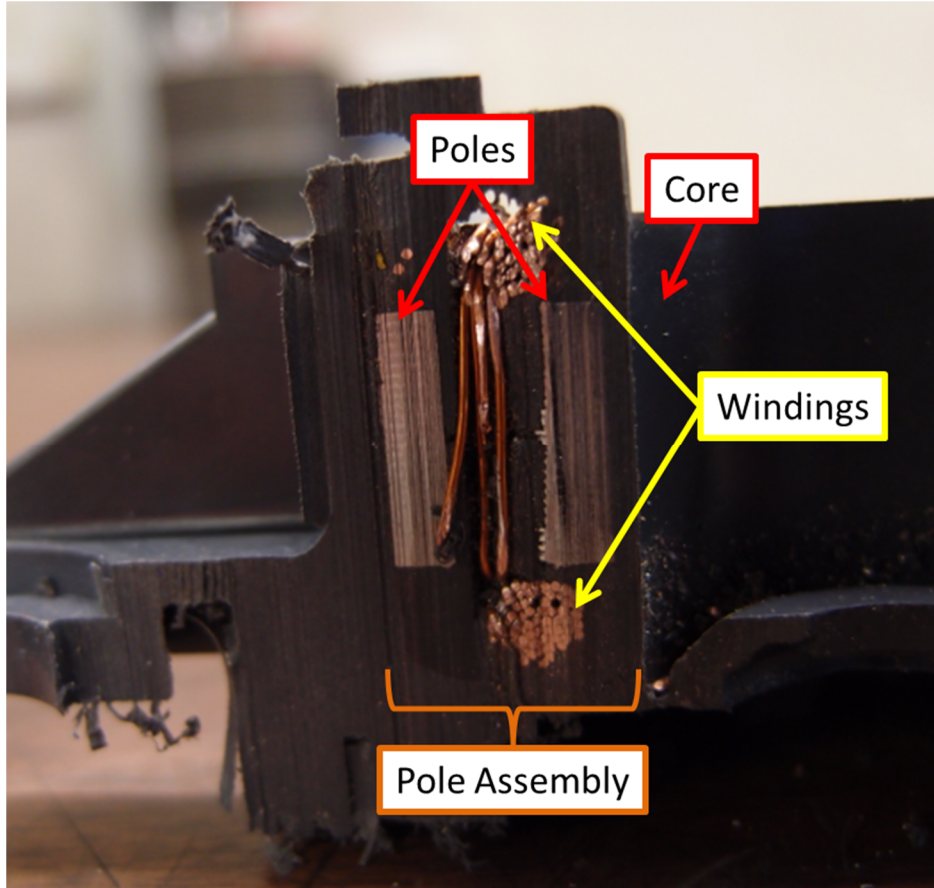
20160808_152221.jpg

"a) a core having poles and windings around said poles forming a pole assembly;"

a) a core having poles and windings around said poles forming a pole assembly;

The Pump comprises a core having poles and windings around said poles forming a pole assembly.

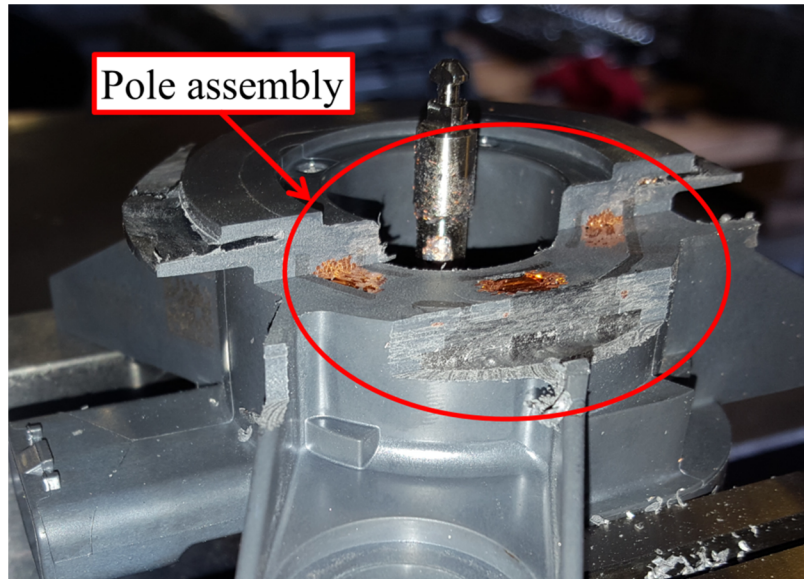
For example, as shown in the photo below, the motor of the Pump has a plurality of poles that are formed by laminations and arranged together in a circular shape to form a core. Each pole is wrapped with copper wire windings.



PC124767.jpg

"a) a core having poles and windings around said poles forming a pole assembly;"

For example, the Pump's poles and windings around said poles form a pole assembly:



20160810_132402.jpg

"b) a shaft, the shaft and pole assembly not being in direct contact with one another, but rather the shaft being spaced from the pole assembly; and"

b) a shaft, the shaft and pole assembly not being in direct contact with one another, but rather the shaft being spaced from the pole assembly; and

The Pump comprises a shaft, the shaft and pole assembly not being in direct contact with one another, but rather the shaft being spaced from the pole assembly.

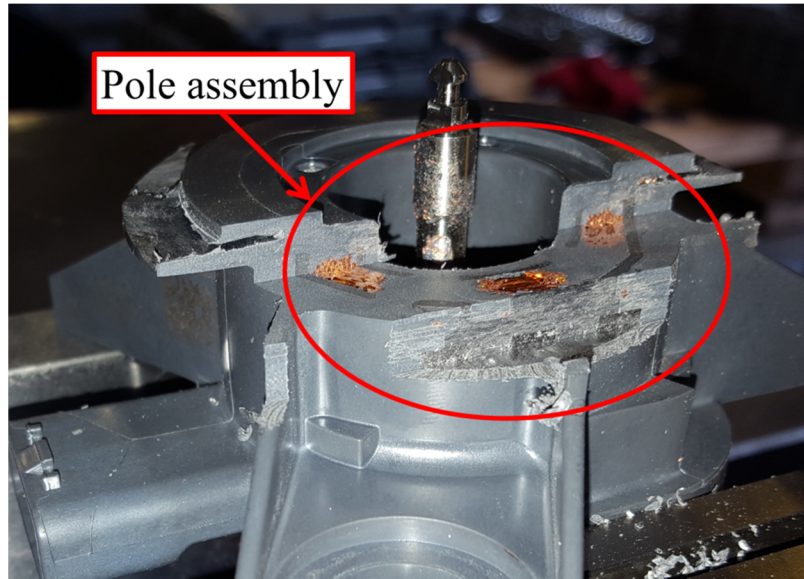
For example, as shown in the picture below, the motor of the Pump contains a shaft:



20160817_110225.jpg

"b) a shaft, the shaft and pole assembly not being in direct contact with one another, but rather the shaft being spaced from the pole assembly; and"

The shaft does not directly contact the core or the windings of the pole assembly. The shaft is positioned within and spaced from the pole assembly:



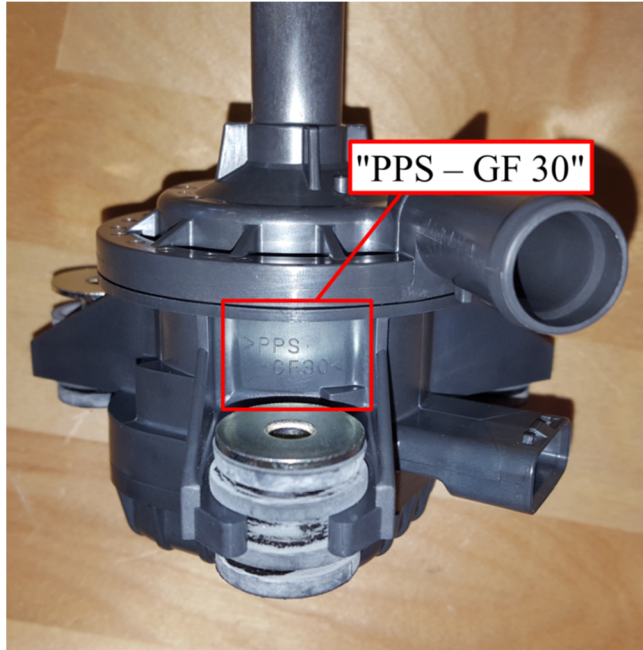
20160810_132402.jpg

"c) a thermoplastic material secured to the shaft and substantially encapsulating the pole assembly,"

c) a thermoplastic material secured to the shaft and substantially encapsulating the pole assembly

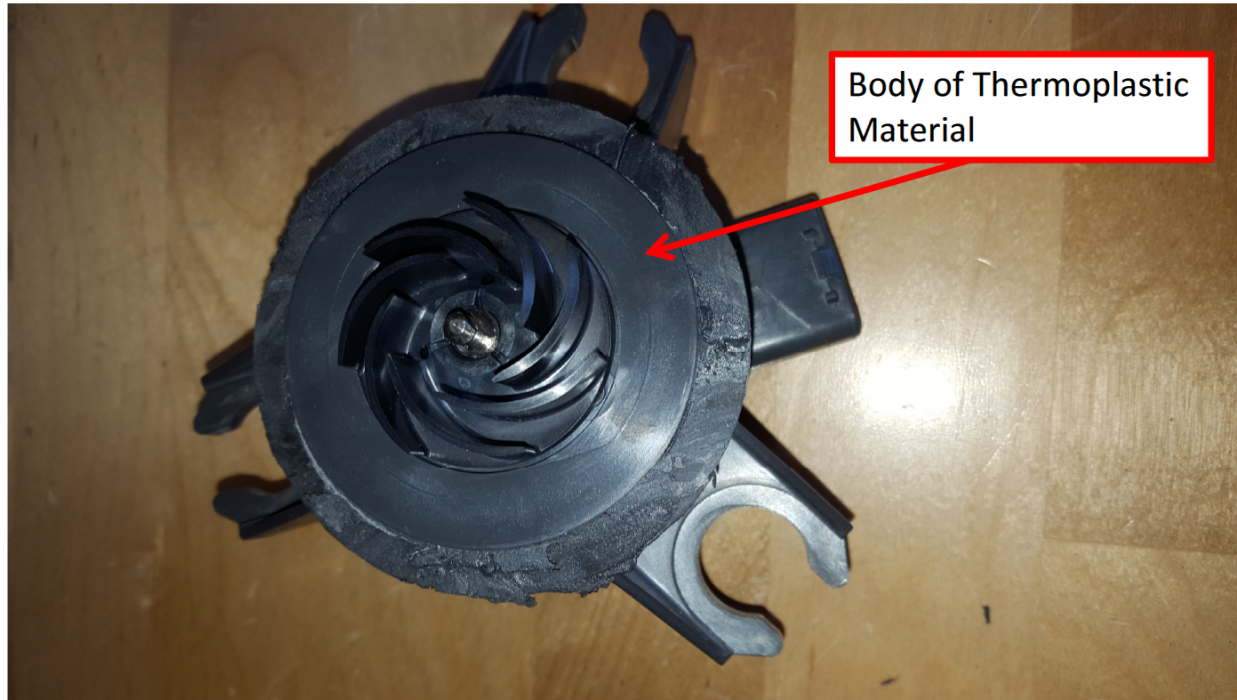
The Pump comprises a thermoplastic material secured to the shaft and substantially encapsulating the pole assembly.

For example, the motor of the Pump includes a thermoplastic body that is formed from a material identified on the Pump as "PPS – GF 30" as shown below:



20160808_151750.jpg

"c) a thermoplastic material secured to the shaft and substantially encapsulating the pole assembly,"



20160808_101659.jpg

This label indicates that the body is made from polyphenylene sulfide with 30% glass fiber filler ("PPS-GF30"). PPS-GF30 is a known thermoplastic.

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PPS

Overview of materials for Polyphenylene Sulfide (PPS) with 30% Glass Fiber Filler

Categories: [Polymer](#), [Thermoplastic](#), [Polyphenylene Sulfide \(PPS\)](#); [Polyphenylene Sulfide \(PPS\) with 30% Glass Fiber Filler](#)

Material Notes: This property data is a summary of similar materials in the MatWeb database for the category "Polyphenylene Sulfide (PPS) with 30% Glass Fiber Filler". Specific grades with glass content between 25% and 34% are included. Each property range of values reported is minimum and maximum values of appropriate MatWeb entries. The comments report the average value, and number of data points used to calculate the average. The values are not necessarily typical of any specific grade, especially less common values and those that can be most affected by additives or processing methods.

<http://www.matweb.com/search/DataSheet.aspx?MatGUID=c43bc743bdc0413ead2b87aca2e38a30&ckck=1>

"c) a thermoplastic material secured to the shaft and substantially encapsulating the pole assembly,"

PPS-GF30 is used in injection molding processes to manufacture parts.

PROSPECTOR®



Home > Plastics > Generics > Polyphenylene Sulfide (PPS)

Polyphenylene Sulfide (PPS) Plastic

Polyphenylene Sulfide (PPS) - [Manufacturers](#) - [Materials](#) - [Classification](#)

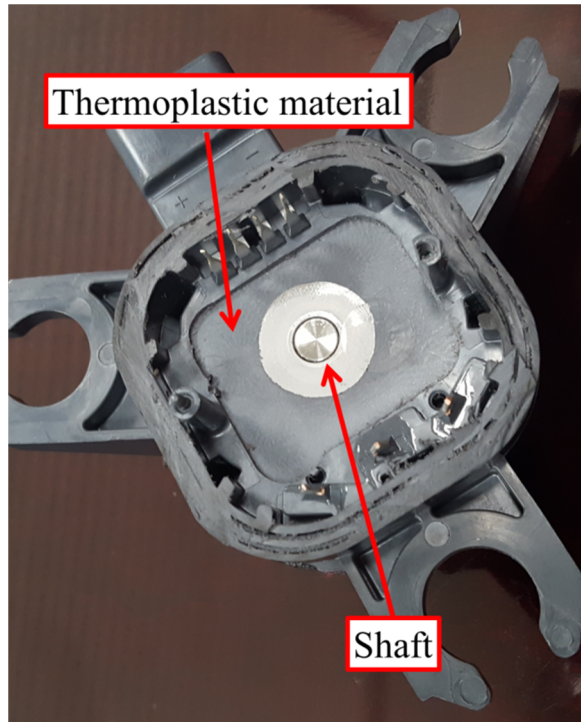


Polyphenylene Sulfide (PPS) - A crystalline polymer having a symmetrical, rigid backbone chain consisting of recurring p-substituted benzene rings and sulfur atoms. A variety of grades suitable for slurry coating, fluidized-bed coating, electrostatic spraying, as well as **injection** and compression **molding** are offered. Polyphenylene sulfides exhibit outstanding chemical resistance, thermal stability, dimensionally stability, and fire resistance. PPS's extreme inertness toward organic solvents, and inorganic salts and bases make for outstanding performance as a corrosion-resistant coating suitable for contact with foods.

<https://plastics.ulprospector.com/generics/41/polyphenylene-sulfide-pps>

"c) a thermoplastic material secured to the shaft and substantially encapsulating the pole assembly,"

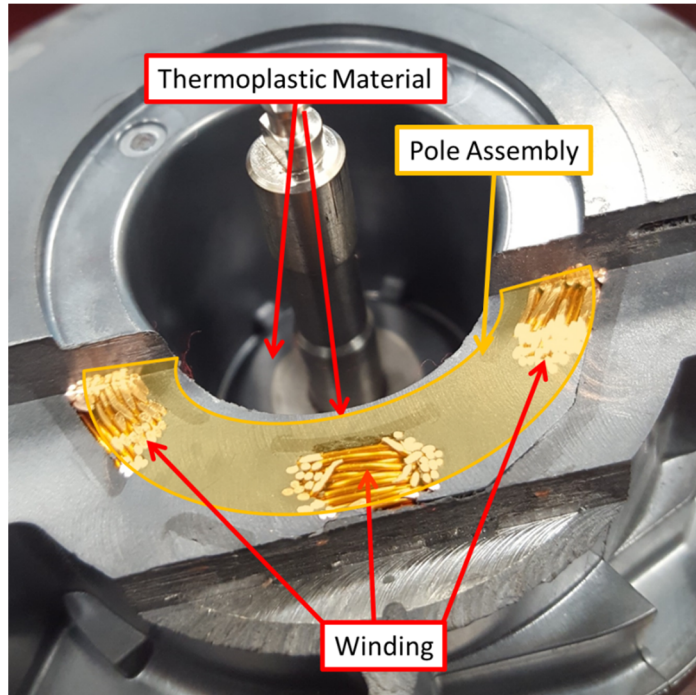
The thermoplastic body contains a portion that is secured to the shaft:



20160817_104459.jpg

"c) a thermoplastic material secured to the shaft and substantially encapsulating the pole assembly,"

The thermoplastic material secured to the shaft also substantially encapsulates the pole assembly. For example, as shown in the picture below the thermoplastic material of the Pump encapsulates the core and the pole assembly.



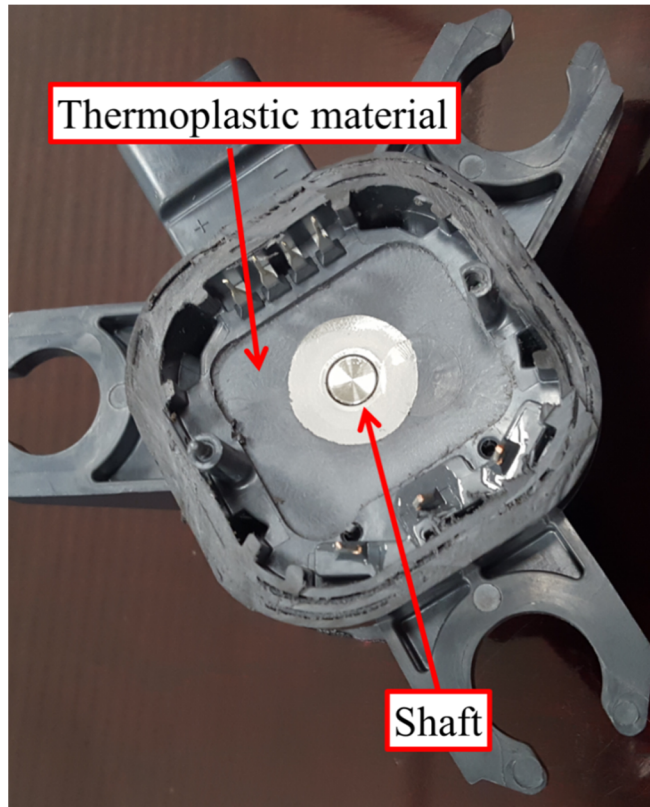
20160817_102628.jpg

"c) the thermoplastic material joining the pole assembly to the shaft in the space between the pole assembly and the shaft, filling in the space between them such that the windings, core and shaft are rigidly fixed together."

c) the thermoplastic material joining the pole assembly to the shaft in the space between the pole assembly and the shaft, filling in the space between them such that the windings, core and shaft are rigidly fixed together.

The pump comprises thermoplastic material joining the pole assembly to the shaft in the space between the pole assembly and the shaft, filling in the space between them such that the windings, core and shaft are rigidly fixed together.

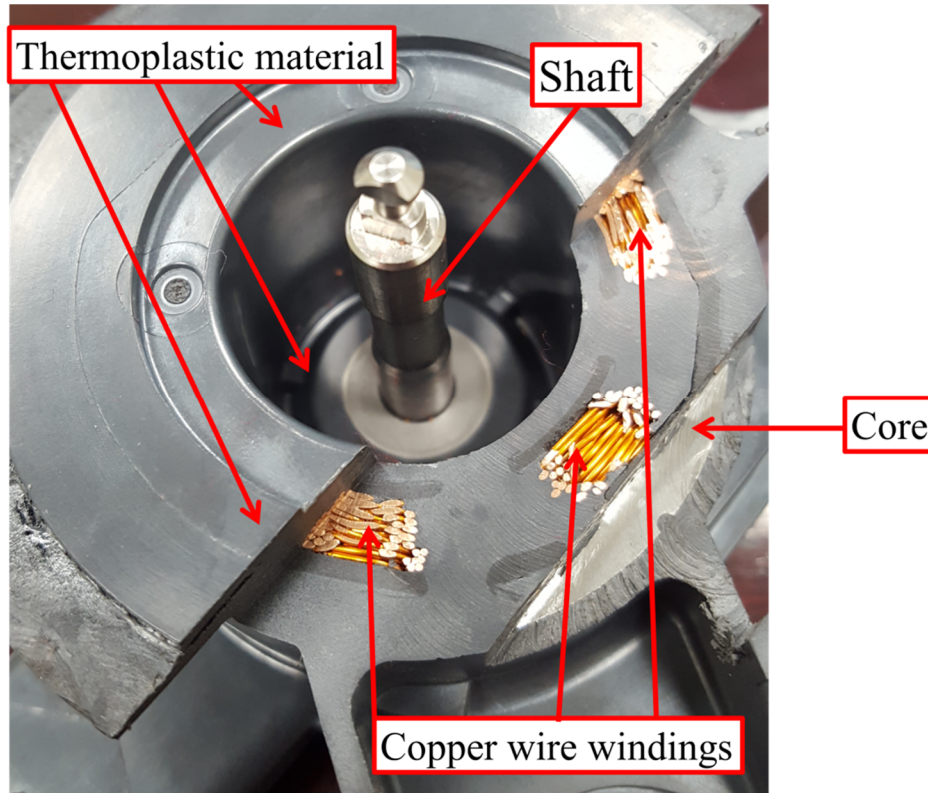
For example, thermoplastic material encapsulates and rigidly fixes the shaft into the same body of material that encapsulates the copper wire, as shown in the picture below:



20160817_104459.jpg

"c) the thermoplastic material joining the pole assembly to the shaft in the space between the pole assembly and the shaft, filling in the space between them such that the windings, core and shaft are rigidly fixed together."

The picture directly below shows the Pump from the reverse side, with the shaft extending outward to receive the rotor:



20160817_102628.jpg

The thermoplastic body substantially encapsulates the pole assembly and also is secured to the shaft. The pole assembly and shaft are separated by a visible distance that is filled with the thermoplastic material, as shown above. The thermoplastic material rigidly fixes the core, copper wire and shaft together.