

EXHIBIT 13

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U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products¹
1. A system for assisting the blood circulation of a heart, comprising:	Abbott has made, used, sold, offered for sale, and/or imported into the United States and is currently making, using, selling, offering for sale and/or importing into the United States products that infringe one or more claims of the '077 patent (the "'077 Accused Products"). Abbott's '077 Accused Products include, but are not necessarily limited to, Abbott's HeartMate 3 Left Ventricular Assist System (LVAS) system ("HeartMate 3")², and any other Abbott products, either alone or in combination, that operate in a reasonably similar manner. For example, and to the extent that Abbott argues that the preamble is a limitation, HeartMate 3 is a system for assisting the blood circulation of a heart, as recited by claim 1. As shown in the exemplary images below from Abbott's documentation for the HeartMate 3 products, the HeartMate 3 is configured such that when implanted and assembled, it "assumes some or all of the workload of the left ventricle" to assist the heart in circulating blood. Overview The HeartMate 3™ Left Ventricular Assist System (LVAS) is a set of equipment and materials that together comprise a medical device designed to provide therapeutic benefit to those affected with advanced heart failure. In service, the LVAS assumes some or all of the workload of the left ventricle, thereby restoring the patient's systemic perfusion while palliating the underlying pathology. The LVAS features a Left Ventricular Assist Device (LVAD), a blood pump intended for long-term implantation in such patients, an extracorporeal Controller, plus all of the features, controls, attachments, interfaces, power sources, supporting equipment, labeling, and tools required to achieve the desired therapeutic benefit. The HeartMate 3 Left Ventricular Assist System is intended for use inside or outside the hospital, or for transportation of LVAD patients via ground ambulance, airplane, or helicopter.

¹ These allegations are exemplary. Discovery from Abbott has not yet begun, and may uncover additional Abbott products that infringe the '077 patent literally or under the doctrine of equivalents. The Court has also not yet construed any terms from any claims of the '077 patent. Thus, Plaintiff reserves the right to supplement these allegations as the case progresses through discovery and the claim construction process.

² The claim chart herein cites to exemplary evidence regarding Abbott's HeartMate 3 products, as products that infringe the '077 patent.

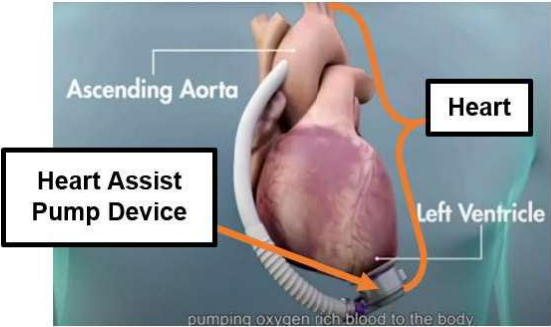
EXHIBIT 13

U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	Exemplary Sources³: “HeartMate 3™ Left Ventricular Assist System Instructions for Use” at pages marked “1-3” – available for download at https://manuals.sjm.com/Search-Form?re=North-America&cc=US&ln=EN&ct=professional&qry=heartmate&ipp=10⁴ via https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf. <i>See also</i> the evidence and analysis for the claim elements discussed below.

³ The sources identified herein are merely exemplary.

⁴ All hyperlinks cited herein were last accessed 20 November, 2023.

EXHIBIT 13

U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products¹
a heart assist pump device deliverable to the heart and comprising:	Abbott's '077 Accused Products include a heart assist pump device deliverable to the heart. For example, the HeartMate 3 products include a Left Ventricular Assist Device (LVAD), a heart assist pump device configured to be delivered to a patient's heart, as shown in the exemplary annotated⁵ image below:  Exemplary Source: Video titled "HeartMate 3 LVAD Patient Education Program – (2) System Overview," available at https://www.youtube.com/watch?v=hmmplKzmKe0. <i>See also</i> the evidence and analysis for the Preamble above and the other claim elements discussed herein.
an inflow tube defining a blood inflow path and having a suction end insertable into a ventricle of the heart;	Abbott's '077 Accused Products include an inflow tube defining a blood inflow path and having a suction end insertable into a ventricle of the heart. For example, as shown in the annotated image below, HeartMate 3's LVAD heart assist pump device comprises an inflow tube, which Abbott calls an inflow cannula, which defines the blood inflow path from from the left ventricle of a patient's heart. Also, the inflow cannula includes a suction end which is configured to be inserted into a left ventricle of a patient's heart.

⁵ All annotations in black text boxes herein have been added by Plaintiff, to supplement the existing annotations (if any).

EXHIBIT 13

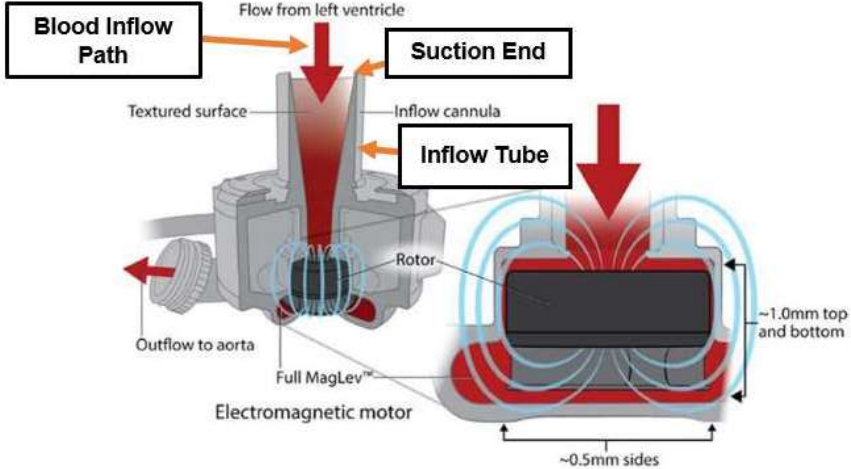
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	 The diagram illustrates the mechanical components and blood flow path of Abbott's '077 Accused Products. It shows a cross-section of the device with the following labeled parts and features: Blood Inflow Path: Indicated by a red arrow pointing downwards into the device. Flow from left ventricle: A label pointing to the inflow path. Suction End: A label pointing to the top of the inflow cannula. Inflow cannula: The tube through which blood enters the device. Inflow Tube: A label pointing to the internal structure of the inflow cannula. Textured surface: A label pointing to the inner wall of the inflow cannula. Rotor: A central rotating component within the device. Full MagLev™: A label pointing to the magnetic levitation system surrounding the rotor. Electromagnetic motor: The base component that drives the rotor. Outflow to aorta: A label pointing to the exit path of the device. Dimensions: The diagram includes dimensions for the rotor area: "~1.0mm top and bottom" and "~0.5mm sides". Exemplary Source: Figure 1 from “HeartMate 3 in Lowest INTERMACS Profile Cohort: The Swiss Experience,” available at https://www.researchgate.net/publication/317276467_HeartMate_3_in_Lowest_INTERMACS_Profile_Cohort_The_Swiss_Experience. <i>See also</i> the evidence and analysis for the Preamble above and the other claim elements discussed herein.

EXHIBIT 13

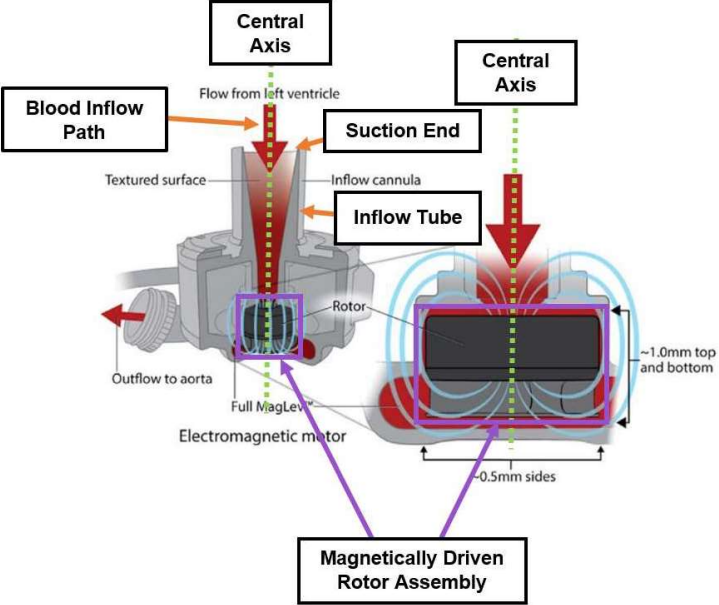
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
a magnetically driven rotor assembly configured to be axially aligned with the inflow tube and to be spaced apart from the suction end when the suction end of the inflow tube is inserted into the ventricle, the magnetically driven rotor assembly comprising a first magnetic device that is rigidly coupled to and axially adjacent to a rotor having guide surfaces to produce centrifugal flow components,	Abbott's '077 Accused Products include a magnetically driven rotor assembly configured to be axially aligned with the inflow tube and to be spaced apart from the suction end when the suction end of the inflow tube is inserted into the ventricle, the magnetically driven rotor assembly comprising a first magnetic device that is rigidly coupled to and axially adjacent to a rotor having guide surfaces to produce centrifugal flow components. For example, as shown in the annotated images below, HeartMate 3's LVAD heart assist pump device comprises a magnetically driven rotor assembly having a central axis that is aligned with the inflow tube, which Abbott calls an inflow cannula. The magnetically driven rotor assembly is also spaced apart from the suction end of the inflow cannula when it is inserted into the left ventricle of a patient's heart.  The diagram illustrates the HeartMate 3 LVAD heart assist pump device. It shows a cross-section of the device with the following components and labels: Central Axis: Two vertical dashed lines indicate the central axis of the device, one for the inflow cannula and one for the rotor assembly. Blood Inflow Path: An orange arrow points into the device from the left. Flow from left ventricle: A red arrow points into the inflow cannula. Suction End: A label pointing to the top of the inflow cannula. Inflow Tube: A label pointing to the main body of the inflow cannula. Textured surface: A label pointing to the inner surface of the inflow cannula. Rotor: A label pointing to the central rotating component. Full MagLev: A label pointing to the magnetically levitated rotor assembly. Electromagnetic motor: A label pointing to the base of the device. Outflow to aorta: A red arrow points out of the device to the right. Magnetically Driven Rotor Assembly: A label pointing to the entire rotor assembly, which is shown with a red outline and blue concentric circles indicating centrifugal flow. Dimensions: The rotor assembly is shown with dimensions: ~1.0mm top and bottom, and ~0.5mm sides.

EXHIBIT 13

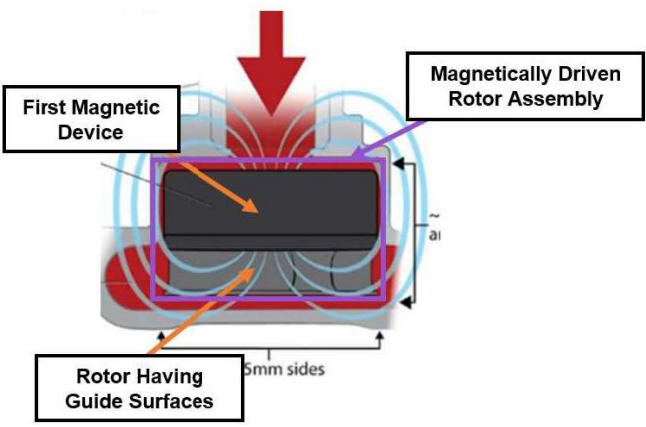
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	Further, the magnetically driven rotor assembly comprises a first magnetic device that is rigidly coupled to and axially adjacent to a rotor that includes guide surfaces to produce centrifugal flow components.  Exemplary Sources: Figure 1 from “HeartMate 3 in Lowest INTERMACS Profile Cohort: The Swiss Experience,” available at https://www.researchgate.net/publication/317276467_HeartMate_3_in_Lowest_INTERMACS_Profile_Cohort_The_Swiss_Experience; HeartMate 3 Website at https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html. <i>See also</i> the evidence and analysis for the Preamble above and the other claim elements discussed herein.

EXHIBIT 13

U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products¹
the magnetically driven rotor assembly being rotatable about a central axis within a surrounding stationary housing to act upon blood flowing from the inflow tube to the rotor while the magnetically driven rotor assembly is entirely spaced apart from the stationary housing by a gap sized for passage of the blood;	The magnetically driven rotor assembly of Abbott's '077 Accused Products is rotatable about a central axis within a surrounding stationary housing to act upon blood flowing from the inflow tube to the rotor while the magnetically driven rotor assembly is entirely spaced apart from the stationary housing by a gap sized for passage of the blood. For example, the magnetically driven rotor assembly is rotatable within a stationary housing withing the HeartMate 3 LVAD heart assist pump device to act upon blood flowing from the inflow tube, which Abbott calls the inflow cannula, toward the rotor. Further, the magnetically driven rotor assembly is configured to be entirely spaced apart from the stationary housing by a gap sized for the passage of the blood. The magnetically driven rotor assembly, rotor, central axis, stationary housing, and gap are shown in the exemplary annotated image below.

EXHIBIT 13

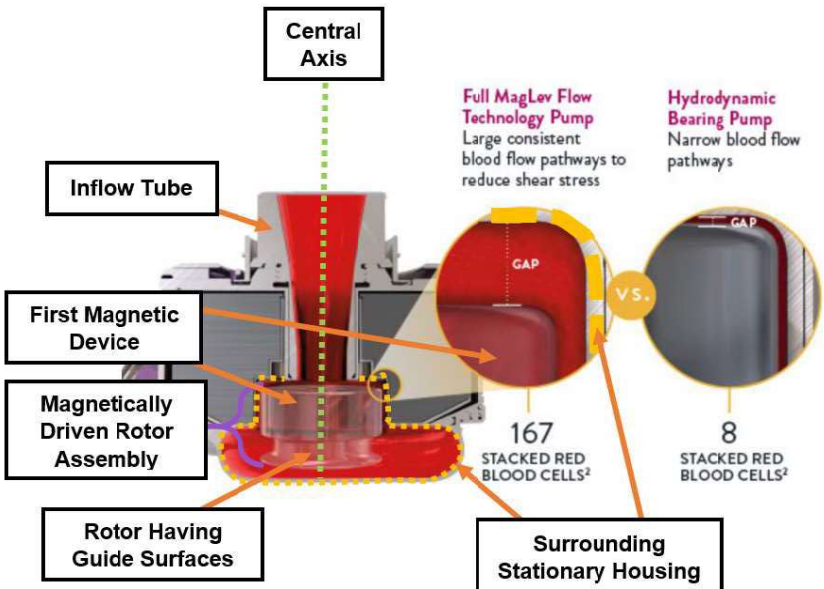
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	 The diagram illustrates the internal components of the HeartMate 3 pump. A central axis runs vertically through the center. An inflow tube enters from the top. Below it is a first magnetic device, followed by a magnetically driven rotor assembly. The rotor has guide surfaces. The entire assembly is housed within a surrounding stationary housing. Two circular insets compare the flow paths: the 'Full MagLev Flow Technology Pump' shows large consistent blood flow pathways to reduce shear stress, while the 'Hydrodynamic Bearing Pump' shows narrow blood flow pathways. The insets also show the number of stacked red blood cells: 167 for the MagLev pump and 8 for the hydrodynamic bearing pump. A 'V.S.' label is placed between the two insets. Exemplary Sources: Figure 1 from “HeartMate 3 in Lowest INTERMACS Profile Cohort: The Swiss Experience,” available at https://www.researchgate.net/publication/317276467_HeartMate_3_in_Lowest_INTERMACS_Profile_Cohort_The_Swiss_Experience; HeartMate 3 Website at https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html. <i>See also</i> the evidence and analysis for the Preamble above and the other claim elements discussed herein.

EXHIBIT 13

U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products¹
a second magnetic device axially aligned with the inflow tube and positioned to magnetically drive rotation of the magnetically driven rotor assembly via a magneto coupling with the first magnetic device while being spaced apart and sealed from both the rotor and the first magnetic device of the magnetically driven rotor assembly, the second magnetic device being positioned axially spaced apart from the guide surfaces of the rotor;	Abbott's '077 Accused Products include a second magnetic device axially aligned with the inflow tube and positioned to magnetically drive rotation of the magnetically driven rotor assembly via a magneto coupling with the first magnetic device while being spaced apart and sealed from both the rotor and the first magnetic device of the magnetically driven rotor assembly, the second magnetic device being positioned axially spaced apart from the guide surfaces of the rotor. For example, the HeartMate 3 heart assist pump device includes a second magnetic device which Abbot calls a Motor, Stator, and/or MagLev Flow technology. This second magnetic device is configured to be axially aligned with the central axis of the magnetically driven rotor assembly, which in turn is axially aligned with the inflow tube. The second magnetic device is positioned to magnetically drive the magnetically driven rotor assembly to rotate via a magneto coupling with the first magnetic device. Further, the second magnetic device is configured to magnetically drive the magnetically driven rotor assembly to rotate while being spaced axially apart from the guide surfaces of the rotor, as well as spaced apart and sealed from the rotor and first magnetic device such as by a wall of the surrounding stationary housing as shown in the exemplary annotated images below.

EXHIBIT 13

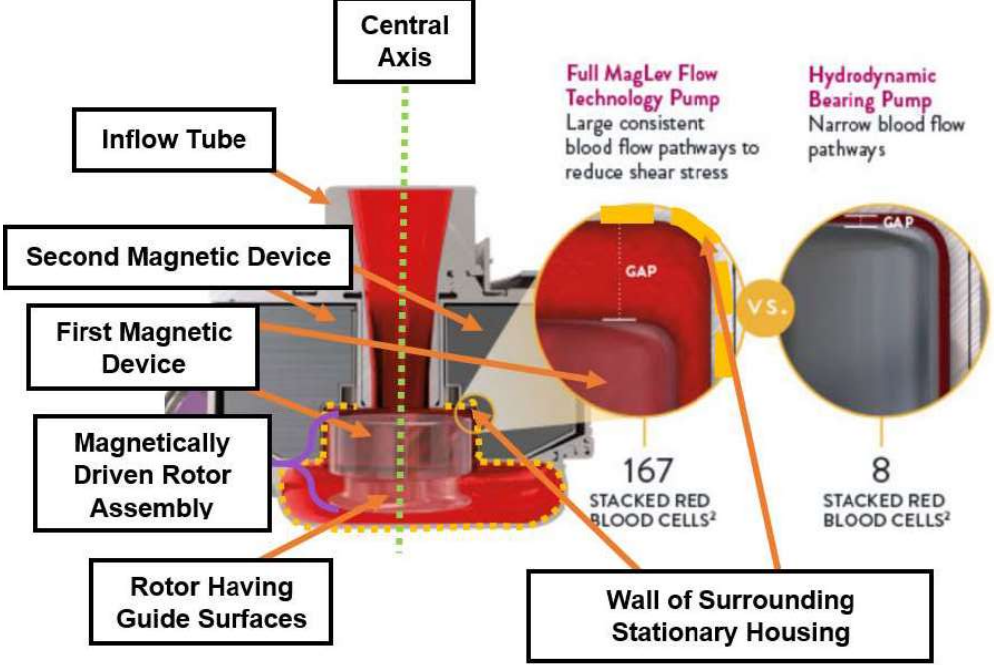
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	 The diagram illustrates the internal components of a ventricular assist device (VAD) pump. It shows a central axis with an inflow tube leading to a rotor assembly. The rotor is surrounded by a stationary housing. The diagram compares the flow pathways in the 'Full MagLev Flow Technology Pump' (left) with those in a 'Hydrodynamic Bearing Pump' (right). The MagLev pump shows large, consistent blood flow pathways with 167 stacked red blood cells, while the hydrodynamic bearing pump shows narrow pathways with only 8 stacked red blood cells. Labels include: Central Axis, Inflow Tube, Second Magnetic Device, First Magnetic Device, Magnetically Driven Rotor Assembly, Rotor Having Guide Surfaces, Wall of Surrounding Stationary Housing, Full MagLev Flow Technology Pump, Large consistent blood flow pathways to reduce shear stress, Hydrodynamic Bearing Pump, Narrow blood flow pathways, GAP, 167 STACKED RED BLOOD CELLS², 8 STACKED RED BLOOD CELLS², and VS. Exemplary Source: HeartMate 3 Website at https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html; see also Video titled “HeartMate 3 LVAD Peer-to-Peer Video Presentation” at https://youtu.be/_C-K-DCINbl. See also the evidence and analysis for the Preamble above and the other claim elements discussed herein.

EXHIBIT 13

U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products¹
a blood outflow port positioned radially adjacent the guide surfaces of the rotor such that, when the blood is driven by the magnetically driven rotor assembly, the blood exits the surrounding stationary housing in a direction substantially perpendicular to the central axis of the magnetically driven rotor assembly,	Abbott's '077 Accused Products include a blood outflow port positioned radially adjacent the magnetically driven rotor such that blood driven by the magnetically driven rotor is configured to exit the surrounding rotor housing in a direction transverse to the central axis of the magnetically driven rotor. For example, the HeartMate 3 heart assist pump device includes a port for blood outflow to the aorta, as shown in the annotated image below. This port is radially adjacent to the guide surfaces of the rotor, such that blood driven by the rotor exits the surrounding stationary housing in a direction substantially perpendicular to the central axis of the magnetically driven rotor assembly.

EXHIBIT 13

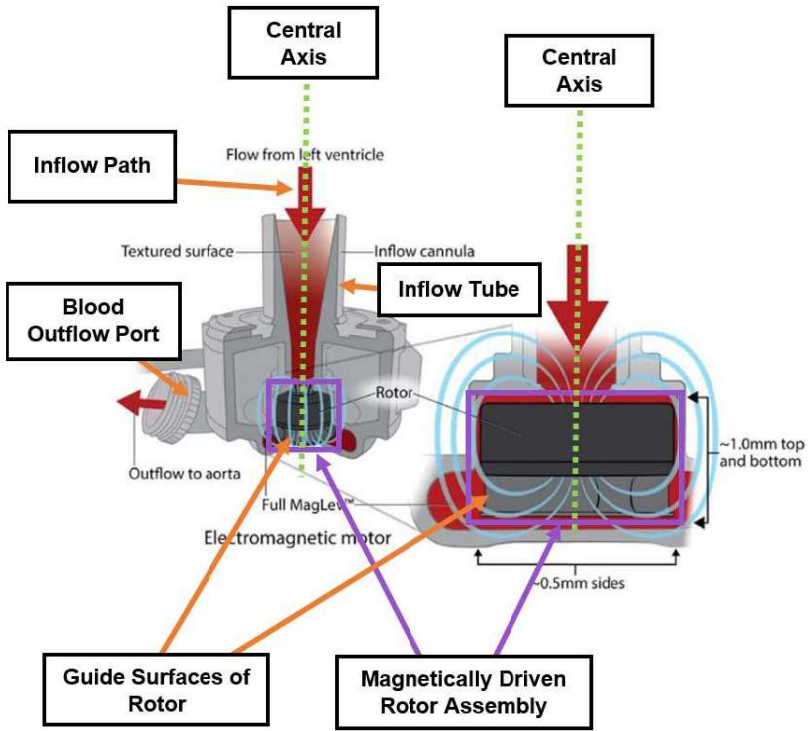
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	 The diagram illustrates the internal components of the HeartMate 3 ventricular assist device. It shows the inflow path from the left ventricle through an inflow cannula and inflow tube into the rotor assembly. The rotor is shown with guide surfaces and is driven by a magnetically driven rotor assembly. The device includes a full MagLev (magnetic levitation) system and an electromagnetic motor. The rotor assembly is shown with dimensions: ~1.0mm top and bottom, and ~0.5mm sides. The inflow path is labeled 'Flow from left ventricle' and the outflow is labeled 'Outflow to aorta'. The diagram also shows a textured surface on the inflow cannula and a blood outflow port. Exemplary Source: Figure 1 from “HeartMate 3 in Lowest INTERMACS Profile Cohort: The Swiss Experience,” available at https://www.researchgate.net/publication/317276467_HeartMate_3_in_Lowest_INTERMACS_Profile_Cohort_The_Swiss_Experience. <i>See also</i> the evidence and analysis for the claim elements discussed below.

EXHIBIT 13

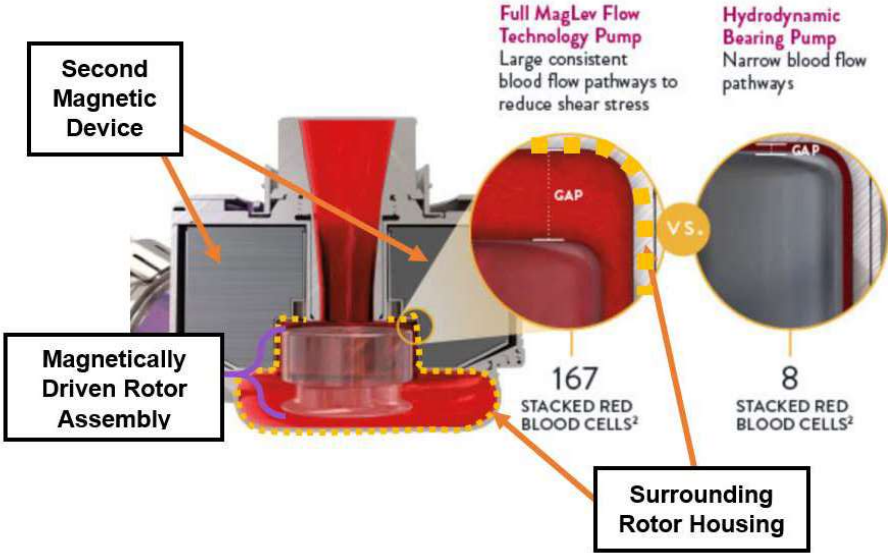
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
wherein the magneto coupling is configured to both drive rotation of the magnetically driven rotor assembly and orient the magnetically driven rotor assembly such that the magnetically driven rotor assembly remains entirely spaced apart from the surrounding stationary housing by the gap sized for passage of the blood; and	The magneto coupling of Abbott's '077 Accused Products is configured to both drive rotation of the magnetically driven rotor assembly and orient the magnetically driven rotor assembly such that the magnetically driven rotor assembly remains entirely spaced apart from the surrounding stationary housing by the gap sized for passage of the blood. For example, as shown in the annotated images below, the second magnetic device of the HeartMate 3 (which Abbott calls a Motor, Stator, and/or MagLev Flow Technology) is configured to drive the rotation of the magnetically driven rotor assembly and to orient the assembly such that it remains entirely spaced apart from the surrounding stationary housing by a gap sized for the passage of the blood. 

EXHIBIT 13

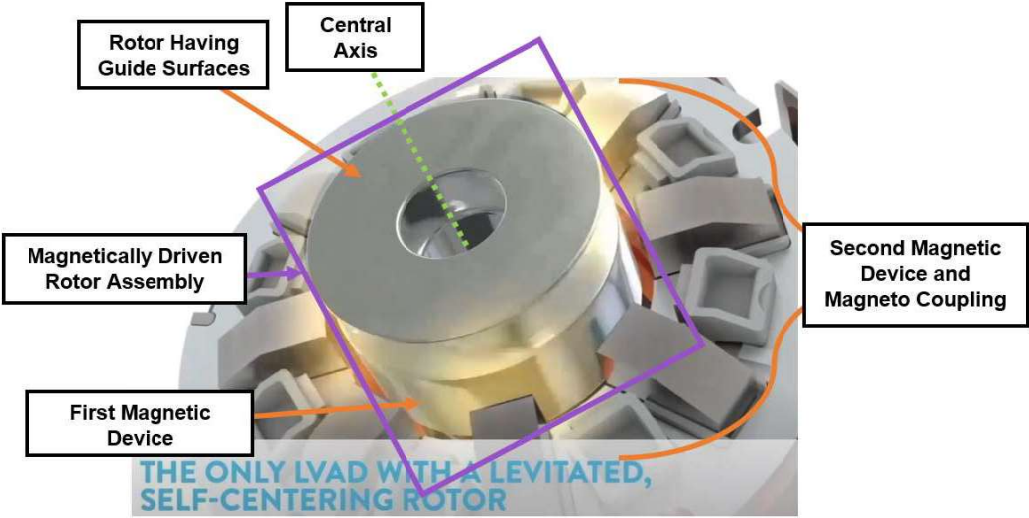
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	 Exemplary Sources: HeartMate 3 Website at https://www.cardiovascular.abbott/us/en/hcp/products/heart-failure/left-ventricular-assist-devices/heartmate-3/about.html; <i>see also</i> video titled “Abbott’s HeartMate 3 LVAD,” available at https://www.youtube.com/watch?app=desktop&v=IbHN8e_OGJw; video titled “HeartMate 3 LVAD Peer-to-Peer Video Presentation” at https://youtu.be/_C-K-DCINbI. <i>See also</i> the evidence and analysis for the Preamble above and the other claim elements discussed herein.
an external control unit configured to regulate operation of the second magnetic device based upon a control value indicative of cardiac output, wherein the external control unit is connectable to the heart assist pump device for controlling the second magnetic device to thereby magnetically drive the rotation of the	Abbott’s ‘077 Accused Products include an external control unit configured to regulate operation of the second magnetic device based upon a control value indicative of cardiac output, wherein the external control unit is connectable to the heart assist pump device for controlling the second magnetic device to thereby magnetically drive the rotation of the magnetically driven rotor assembly via the magneto coupling with the first magnetic device. For example, Abbott’s HeartMate 3 products include an external control unit, which Abbott calls the system controller. This external control unit is configured to be connected to the heart assist pump device which Abbott

EXHIBIT 13

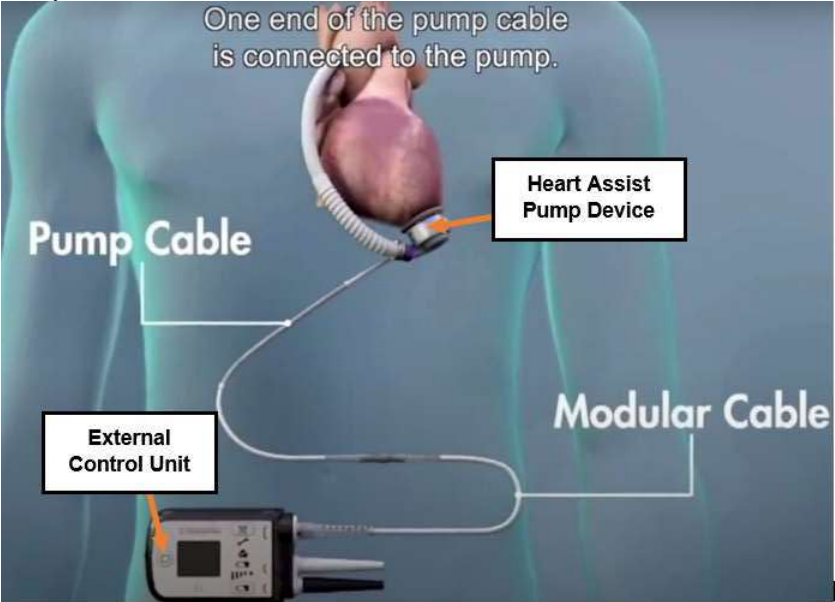
U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
magnetically driven rotor assembly via the magneto coupling with the first magnetic device.	calls the HeartMate 3 LVAD. The external control unit is also configured to regulate the operation of the second magnetic device, which Abbott calls the Motor, Stator, or MagLev Flow technology, to magnetically drive the rotation of the magnetically driven rotor as discussed above.  One end of the pump cable is connected to the pump. Pump Cable Heart Assist Pump Device External Control Unit Modular Cable Further, Abbott's HeartMate 3 products are configured to regulate the operation of the second magnetic device based on control values indicative of cardiac output, such as a fixed speed or low speed limit which is indicative of cardiac output (e.g. output as measured in liters of blood per minute).

EXHIBIT 13

U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	Fixed Speed The fixed speed is adjustable in increments of 100 rpm, with a range of 3,000 to 9,000 rpm. A low speed advisory alarm appears if either the fixed speed has been set 200 rpm or more below the low speed limit, or the System Controller is unable to maintain the speed at or above the low speed limit. This low speed advisory alarm notification is always provided on the HeartMate Touch™ App (Figure 4.26). Set the Fixed Speed 1. Tap — or + or move the slider to decrease or increase the fixed speed. 2. Tap APPLY to confirm changes.  Figure 4.26 Settings Panel with Pump Parameters

EXHIBIT 13

U.S. Patent No. 11,754,077 Claim	Abbott's '077 Accused Products ¹
	Low Speed Limit The low speed limit should be set at the lowest speed at which the pump can run while maintaining patient stability. It is important to establish a low speed limit that can sustain a patient safely to maximize the protective benefits during PI events or when the pump is in power saver mode. In power saver mode, the System Controller slows pump speed to save power. If power is removed or fails, the System Controller gives 15 minutes of full power before entering power saver mode. Note that alarms cannot be silenced while the System Controller is in power saver mode. Set Low Speed Limit 1. Tap — or + or move the slider to decrease or increase the low speed limit (Figure 4.27). 2. Tap APPLY to confirm the changes.  Figure 4.27 Settings Panel to Set Low Speed Limit Exemplary Sources: Video titled “HeartMate 3 LVAD Patient Education Program – (2) System Overview,” available at https://www.youtube.com/watch?v=hmmpIKzmKe0; “HeartMate 3™ Left Ventricular Assist System Instructions for Use” at pages marked “1-3,” “1-10,” “4-24,” and “4-27” – available for download at https://manuals.sjm.com/Search-Form?re=North-America&cc=US&ln=EN&ct=professional&qry=heartmate&ipp=10 via https://manuals.sjm.com/~media/manuals/product-manual-pdfs/5/7/571a1818-2da2-4c1a-b454-f6f5a3bc39b6.pdf. <i>See also</i> the evidence and analysis for the claim elements discussed below.