Oil pan assemblies and methods of draining oil pans are disclosed. An example oil pan assembly includes an oil pan defining first and second sumps. The first sump has a first lower surface and the second sump has a second lower surface. The second lower surface is elevated along a vertical axis relative to the first lower surface. The oil pan assembly also includes a siphon tube extending from an inlet positioned in the second sump to an outlet positioned proximate a drain hole in the first sump. The siphon tube is configured to automatically transmit oil from the second sump to the first sump upon oil being drained from the drain hole.
FIG. 1
(Prior Art)

FIG. 2A
FIG. 4B

500

502 Remove drain plug from drain hole in first sump

504 Collect oil drained from drain hole

506 Cause pressure imbalance within siphon tube so as to cause oil within second sump to pass through siphon tube into first sump

FIG. 5
OIL PAN DESIGN FOR DRAWING TWO SUMPS FROM A SINGLE DRAIN PLUG

TECHNICAL FIELD

[0001] The present disclosure relates generally to oil pan assemblies and methods of draining oil pans.

BACKGROUND

[0002] Oil is used to lubricate the moving parts of an internal combustion engine. Oil moves from its reservoir, pressured by an oil pump, and is pumped through an oil filter to remove contaminants. The oil is then provided to the crankshaft and connecting rod bearings and onto the cylinder walls. Eventually, the oil drips off into the bottom of the crankcase. In a wet sump system, oil remains in a reservoir at the bottom of the crankcase. The bottom of the crankcase is often referred to as an oil pan. In a dry sump system, the oil is instead pumped to an external reservoir.

[0003] Conventionally, oil pans have included a single sump (e.g., reservoir). However, modern engine systems have become increasingly complicated over time, with more components being fit into tighter spaces. Therefore, in some arrangements, oil pans include complex geometry in order to fit in a constrained space proximate other vehicle components (e.g., structural cross-members, tie rods, steering racks, etc.). For example, some oil pans include two sumps. However, in certain arrangements, it may be difficult for technicians or users to properly drain oil from each of the two sumps.

SUMMARY

[0004] Various embodiments relate to an oil pan assembly including an oil pan defining first and second sumps. The first sump has a first lower surface and the second sump has a second lower surface. The second lower surface is elevated along a vertical axis relative to the first lower surface. The oil pan assembly also includes a siphon tube extending from an inlet positioned in the second sump to an outlet positioned proximate a drain hole in the first sump. The siphon tube is configured to automatically transmit oil from the second sump to the first sump upon oil being drained from the drain hole.

[0005] Further embodiments relate to an oil pan assembly including an oil pan defining first and second sumps. The first sump has a first lower surface and the second sump has a second lower surface. The second lower surface is elevated along a vertical axis relative to the first lower surface. The oil pan assembly also includes a siphon tube positioned within the first sump. The oil pan assembly further includes a siphon tube that includes a first segment positioned within the first sump, a second segment positioned within the second sump, and a third segment fluidly coupling the first and second segments. Further yet, the oil pan assembly includes a cross- over tube fluidly coupling the suction tube and the siphon tube. Still further, the oil pan assembly includes an oil pump operatively coupled to the suction tube. The oil pump is configured to cause a pressure differential within each of the suction tube and the siphon tube to draw a fluid through each of the suction tube and the siphon tube.

[0006] Further embodiments relate to a method for draining oil from an oil pan having first and second sumps. The method includes removing a drain plug from a drain hole in the first sump. The method also includes collecting oil that is drained from the drain hole. The method further includes causing a pressure imbalance within a siphon tube so as to cause oil within the second sump to pass through the siphon tube and into the first sump.

[0007] This summary is provided to introduce a selection of concepts that are further described below in the illustrative embodiments. This summary is not intended to identify key or essential features of the claimed subject matter, nor is it intended to be used as an aid in limiting the scope of the claimed subject matter. Further embodiments, forms, objects, features, advantages, aspects, and benefits shall become apparent from the following description and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is a cross-section of a conventional dual sump oil pan assembly.

[0009] FIG. 2A-2B are cross-sectional views of a dual sump oil pan assembly in which both sumps may be drained from a single drain hole, according to an example embodiment.

[0010] FIG. 3A illustrates a siphon tube for use with a dual sump oil pan according to another example embodiment.

[0011] FIG. 3B illustrates a siphon tube for use with a dual sump oil pan according to still another example embodiment.

[0012] FIG. 4A is a cross-sectional view of a dual sump oil pan assembly according to an example embodiment.

[0013] FIG. 4B illustrates an alternative embodiment of the dual sump oil pan assembly of FIG. 4A.

[0014] FIG. 5 is a flow diagram of a method of draining oil from an oil pan having first and second sumps, according to an example embodiment.

DETAILED DESCRIPTION

[0015] For the purposes of promoting an understanding of the principles of the invention, reference will now be made to the embodiments illustrated in the drawings and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended, such alterations and further modifications in the illustrated embodiments, and such further applications of the principles of the invention as illustrated therein as would normally occur to one skilled in the art to which the invention relates are contemplated and protected.

[0016] The present disclosure relates to a dual sump oil pan assembly that is capable of draining both sumps from a single drain hole. In particular, the oil pan assembly includes a self-priming siphon tube that automatically transmits oil from the second sump to the first sump when the oil is drained, such that both sumps may be drained from a single drain hole in the first sump.

[0017] FIG. 1 is a cross-sectional view of a conventional dual sump oil pan assembly 100. The oil pan assembly 100 includes an oil pan 102 having a flange 104 to mount the oil pan 102 to a crankcase of an engine (not shown). The oil pan 102 is shaped so as to define a first sump 106 and a second sump 108, which are separated by a raised portion 110. In operation, oil collects in the first and second sumps 106, 108 after lubricating engine components.

[0018] The oil pan 102 defines a first drain hole 112 at the bottom of the first sump 106 and defines a second drain hole 114 at the bottom of the second sump 108. Each of the first and second drain holes 112, 114 include respective threaded inserts 116, 118 to accept drain plugs (not shown). To change the oil, the drain plugs are removed, and oil within each of the
first and second sumps 106, 108 drains from the oil pan assembly 100 through the corresponding first and second drain holes 112, 114.

[0019] For various reasons, technicians and users are more likely to conduct oil changes improperly with oil pans having multiple drain plugs than with those having a single drain plug. Because technicians and users are typically used to working with oil pans having a single drain plug, they may forget or may simply not know to remove each drain plug. If each sump is not drained, the spent oil remaining in the un-drained sump will mix with fresh oil, thereby reducing the useful life of the oil and reducing the interval time until the next oil change is required. Further, because other vehicle components are likely to be arranged in close proximity to the oil pan assembly 102, it may be difficult for a technician or operator to access one of the drain plugs. In fact, close proximity of other vehicle components is one of the reasons why certain oil pans have multiple sumps. Therefore, one of the drain plugs—typically the drain plug of the second drain hole 114—may be difficult to access. Therefore, it may be difficult to locate, remove, and/or properly tighten the drain plug of the second drain hole 114. Thus, it is desirable to provide a system in which both sumps of a dual sump oil pan can be drained from a single drain hole.

[0020] FIG. 2A is a cross-sectional view of a dual sump oil pan assembly 200 in which both sumps may be drained from a single drain hole, according to an example embodiment. The oil pan assembly 200 is shown in FIG. 2A in an at-rest orientation. In other words, the oil pan assembly 200 is shown in an orientation as if it was mounted as a crankcase of an engine within a vehicle disposed on a flat surface. The oil pan assembly 200 includes an oil pan 202 having a flange 204. Similar to the oil pan assembly 100 of FIG. 1, the oil pan 202 is shaped so as to define a first sump 206 and a second sump 208, which are separated by a raised portion 210. The raised portion 210 serves as a barrier to prevent oil from passing from one of the first and second sumps 206, 208 to the other of the first and second sumps 206, 208. The first sump 206 includes a first lower surface 209, and the second sump 208 includes a second lower surface 211. The second lower surface 211 is elevated along a vertical axis 213 relative to the first lower surface 209. In other words, the first sump 206 is deeper than the second sump 208. In operation, oil collects in the first and second sumps 206, 208 after lubricating engine components. The oil pan 202 also defines a drain hole 212 on the first lower surface 209 of the first sump 206. The drain hole 212 includes a threaded insert 214 to accept a drain plug (not shown). Notably, the oil pan 202 consists of a single drain hole 212.

[0021] The oil pan assembly 200 also includes a siphon tube 216 disposed within the oil pan 202. The siphon tube 216 has a first segment 218 positioned in the first sump 206. The first segment 218 defines an outlet 220 positioned proximate the drain hole 212 in the first sump 206. The siphon tube 216 also has a second segment 222 positioned proximate the second lower surface 211 of the second sump 208. The second segment 222 defines an inlet 224 positioned proximate the second lower surface 211 of the second sump 208. A third segment 226 extends over the raised portion 210, fluidly coupling the first segment 218 and the second segment 222.

[0022] According to an example embodiment, the siphon tube 216 is formed by bending a unitary tube (e.g., ⅛"-⅜" or larger steel or aluminum tubing) at a first point 227 defining an interface between the first segment 218 and the third segment 226, and at a second point 229 defining an interface between the second segment 222 and the third segment 228. In some examples, the siphon tube 216 is bent or otherwise formed such that each of the first and second segments 218, 222 are positioned at non-zero angles relative to the vertical axis 213. According to one non-limiting example, the first segment 218 is angled at about 45 degrees relative to the vertical axis 213 and the second segment 222 is angled at approximately 30 degrees relative to the vertical axis. As shown in FIG. 2A, for example, the first segment 218 is angled such that the outlet 220 is positioned proximate the drain hole 212. The second segment 222 is also angled such that the inlet 224 clears a radius 234 of the oil pan 202, thereby positioning the inlet 224 over a flat portion of the second lower surface 211.

[0023] In some arrangements, the outlet 220 of the first segment 218 is cut or shaped at an angle such that the outlet 220 is substantially parallel with the first lower surface 209 of the first sump 206. Similarly, in some arrangements, the inlet 224 of the second segment 222 is cut or shaped at an angle, such that the inlet 224 is substantially parallel with the second lower surface 211 of the second sump 208. By angling the first segment 218 and the outlet 220, the height differential between the outlet 220 and the oil level in the second sump 208 is maximized, thereby maximizing the pressure along the streamline of the siphon tube 216. Further, by angling the second segment 222 and the inlet 224, the maximum amount of oil may be removed from the second sump 208.

[0024] The siphon tube 216 provides fluid communication between the second sump 208 and the first sump 206. In particular, the siphon tube 216 is configured to transmit oil within the second sump 208 into the inlet 224 of the siphon tube 216; through the second segment 222, the third segment 228, and the first segment 218 of the siphon tube 216; and out of the outlet 220 of the siphon tube 216 and into the first sump 206, such that the oil may ultimately be drained from the oil pan 202 through the drain hole 212. As discussed in further detail below in connection with FIG. 23, the siphon tube 216 is “self-priming” such that oil is automatically transmitted through the siphon tube 216 from the second sump 208 to the first sump 206 upon oil being drained from the first sump 206.

[0025] The siphon tube 216 may be attached to the oil pan 202 in various ways. In some arrangements, the third segment 228 of the siphon tube 216 is attached to the raised portion 210 of the oil pan 202 via one or more couplings 230. In one arrangement, the couplings 230 include welds such that the siphon tube 216 is fixedly coupled to the oil pan 202. In another arrangement, the couplings 230 include removable fasteners (e.g., hose clamps or other fasteners) such that the siphon tube 216 is removably coupled to the oil pan 202.

[0026] FIG. 23 is another cross-sectional view of the dual sump oil pan assembly 200 of FIG. 2A. As shown in FIG. 2B, oil within the first sump 206 has a first oil level 236 and oil within the second sump 208 has a second oil level 238. In some arrangements, the first and second oil levels 236, 238 are the same during steady-state conditions (e.g., when oil is not being drained from the oil pan 202). In some arrangements, the first and second oil levels 236, 238 are different during steady-state conditions. In other arrangements, the first and second oil levels 236, 238 are different during steady-state conditions. A first height differential 240 extends between the second oil level 238 and the outlet 220. A second height differential 242
extends between the second oil level 238 and a centerline of the third segment 228 of the siphon tube 216.

[0027] During steady-state conditions (e.g., when oil is not being drained from the oil pan 202), the oil within the first sump 206 fills the first segment 218 of the siphon tube 216 up to the first oil level 236. Similarly, oil within the second sump 208 fills the second segment 222 of the siphon tube 216 up to the second oil level 238. When the oil is being drained from the drain hole 212 of the oil pan 202, the siphon tube 216 operates as a siphon such that the oil flowing out of the first segment 218 due to gravity reduces the pressure in the third segment 228. The reduced pressure in the third segment 228 causes the oil within the second segment 222 to flow upwards into the third segment 228, through the third segment 228 into the first segment 218, and from the outlet 220 of the first segment 218 into the first sump 206, eventually exiting the oil pan 202 through the drain hole 212. Oil within the second sump 208 continuously flows through the second segment 222, the third segment 228, and the first segment 218 until the second oil level 238 falls below the inlet 224.

[0028] FIG. 3A illustrates a siphon tube 302 for a dual sump oil pan 304 according to another example embodiment. The siphon tube 302 of FIG. 3A is similar to the siphon tube 216 of FIGS. 2A and 2B. However, the siphon tube 302 of FIG. 3A has first and second segments 306, 308 that are substantially parallel with a vertical axis 310. In contrast, the first and second segments 218, 222 of the siphon tube 216 of FIG. 2A are angled at non-zero angles relative to the vertical axis 213.

[0029] The first segment 306 is connected, at a first end thereof, to a first end of a third segment 312. Similarly, the second segment 308 is coupled at a first end thereof to a second end of the third segment 312. The siphon tube 302 of FIG. 3 also has a fourth segment 314 extending substantially perpendicularly from a second end of the first segment 306. Furthermore, a fifth segment 316 extends substantially perpendicularly from a second end of the second segment 308. The fourth segment 314 defines an outlet 318, and the fifth segment 316 defines an inlet 320. In some arrangements, the outlet 318 is cut or shaped at an angle so as to discharge oil towards a drain hole 322 in the oil pan 304.

[0030] FIG. 3B illustrates a siphon tube 324 for a dual sump oil pan 304 according to still another example embodiment. The siphon tube 324 is an alternative embodiment of the siphon tube 302 of FIG. 3A. The siphon tube 324 of FIG. 3B is similar to the siphon tube 302 of FIG. 3A, except that an outlet 326 of a fourth segment 328 of the siphon tube 324 includes drainage holes 330 proximate the drain hole 322 of the oil pan 304, as opposed to the outlet 318 of the siphon tube 302 of FIG. 3A being cut as an angle. In one example, the drainage holes 330 have a combined surface area that is approximately equal to an inner cross-sectional surface area of the siphon tube 324. Further, an end 332 of the fourth segment 328 may be open or enclosed, according to various embodiments.

[0031] FIG. 4A is a cross-sectional view of a dual sump oil pan assembly 400 in which both sumps may be drained from a single drain hole, according to another example embodiment. The oil pan assembly 400 includes an oil pan 402 that is configured to be mounted to a crankcase of an engine. The oil pan 402 is generally similar in shape as the oil pan 202 of FIGS. 2A-2B. For example, the oil pan 402 is shaped so as to define a first sump 404 and a second sump 406, which are separated by a raised portion 408. The first sump 404 includes a first lower surface 410, and the second sump 406 includes a second lower surface 412. The second lower surface 412 is elevated along a vertical axis 414 relative to the first lower surface 410. The oil pan 402 also defines a drain hole 416 on the first lower surface 410 of the first sump 404. The drain hole 416 includes a threaded insert 418 to accept a drain plug (not shown). Notably, the oil pan 402 consists of a single drain hole 416.

[0032] The oil pan assembly 400 also includes a suction tube 420 disposed at least partially within the first sump 404. The suction tube 420 includes a pickup portion 422 and a transfer portion 424. The transfer portion 424 is operatively coupled to an oil pump 426. The oil pump 426 is configured to cause a pressure differential within the suction tube 420 to draw oil from the first sump 404 to various components of the engine. In various implementations, the oil pump 426 draws oil through an oil filter and sometimes an oil cooler, before the oil is transferred through the engine’s oil passages and is dispersed to lubricate various engine components, such as pistons, rings, springs, valve stems, etc.

[0033] As illustrated in FIG. 4A, the pickup portion 422 is positioned substantially parallel to the first lower surface 410 of the first sump 404. According to various embodiments, the pickup portion 422 includes a single inlet 428 at the free end of the pickup portion. In other embodiments, the pickup portion 422 includes multiple inlets positioned about the length of the pickup portion 422. According to an embodiment, the position and configuration of the pickup portion 422 facilitates the transfer of oil from the first sump 404 even if the level of oil within the first sump 404 is low.

[0034] The oil pan assembly 400 also includes a siphon tube 430 disposed within the oil pan 402. The siphon tube 430 has a first segment 432 positioned in the first sump 404. The first segment 432 defines an outlet 434. The siphon tube 430 also has a second segment 436 positioned in the second sump 406. The second segment 436 defines an inlet 438 positioned proximate the second lower surface 412 of the second sump 406. A third segment 440 extends over the raised portion 408, fluidly coupling the first segment 432 and the second segment 436.

[0035] The oil pan assembly 400 further includes a crossover tube 442 that fluidly couples the suction tube 420 and the siphon tube 430. More specifically, as illustrated in FIG. 4A, the crossover tube 442 is fluidly coupled to each of the transfer portion 424 of the suction tube 420 and to the first segment 432 of the siphon tube 430.

[0036] According to various embodiments, each of the suction tube 420, the siphon tube 430, and the crossover tube 442 may be constructed of various materials, such as bent metal (e.g., steel or aluminum) tubing, braided metal (e.g., steel) tubing, polymer (e.g., nitrile, chlorinated polyethylene (CPE), etc.), which may be reinforced, for example, with Hyalon® tubing, and other types of tubing known to those having ordinary skill in the art. Each of the suction tube 420, the siphon tube 430, and the crossover tube 442 may be constructed of the same or different materials. For example, in one embodiment, each of the suction tube 420 and the siphon tube are formed from steel tubing and the crossover tube 442 is formed from polymer tubing. Further, each of the of the suction tube 420, the siphon tube 430, and the crossover tube 442 may include various types of fittings as known to those having ordinary skill in the art to facilitate the fluid couplings described above.

[0037] The oil pan assembly 400 of FIG. 4A, including the suction tube 420 fluidly coupled to the siphon tube 430 via the
crossover tube 442, facilitates improved oil transfer from the second sump 406 to the first sump 404. In operation, the oil pump 426 causes a pressure differential within the suction tube 420 to draw oil from the first sump 404 to various components of the engine. In doing so, a pressure differential is also formed within the crossover tube 442, which is fluidly coupled to the suction tube 420. In turn, a pressure differential is further formed within the siphon tube 430, which is fluidly coupled to the crossover tube 442. The pressure differential within the siphon tube 430 causes fluids, such as air and oil, within the second and third segments 436, 440 of the siphon tube 430 to be drawn to the first segment 432. Upon entering the first segment 432, the fluids may be discharged into the first sump 404 through the outlet 434 of the first segment 432, and/or may be drawn through the crossover tube 442 and into the transfer portion 424 of the suction tube 420. According to various embodiments, such fluid transfer, including the transfer of air pockets within the siphon tube 430, operates to prime the siphon tube 430, thereby causing oil to flow through the siphon tube 430 from the second sump 406 to the first sump 404. Accordingly, oil within the second sump 406 that is transferred to the first sump 404 may be utilized to cool and lubricate the engine, and may be easily drained through the single drain hole 416 of the first sump 404.

[0038] FIG. 4B illustrates an alternative embodiment of the oil pan assembly 400 of FIG. 4A. As illustrated in FIG. 4B, the first segment 432 of the siphon tube 430 terminates into the crossover tube 442 (e.g., via an elbow fitting). Accordingly, in the embodiment illustrated in FIG. 4B, the first segment 432 of the siphon tube 430 does not include the outlet 434 of FIG. 4A. Thus, in the embodiment of FIG. 4B, oil is drawn from the second sump 406 through the siphon tube 430, through the crossover tube 442, and into the transfer portion 404 of the suction tube 420.

[0039] FIG. 5 is a flow diagram of a method 500 for draining oil from an oil pan having first and second sumps, according to an example embodiment. For example, the method 500 may be performed using the oil pan assembly 200 of FIGS. 2A and 2B, the oil pan assembly 300 of FIGS. 3A and 3B, or the oil pan assembly 400 of FIGS. 4A and 4B. For purposes of clarity and brevity, the method 500 is described below with respect to the oil pan assembly 200 of FIGS. 2A and 2B. However, the method 500 is not limited to this particular embodiment and may similarly be performed on other oil pan assemblies.

[0040] At 502, a drain plug is removed from the drain hole 212 in the first sump 206. Drain plugs are often threadedly coupled to drain holes and can typically be removed using a wrench. Upon removing the drain plug at 502, oil begins to flow from the drain hole 212. At 504, oil is collected from the drain hole 212. For example, the oil may be collected in a receptacle such as a drain pan.

[0041] At 506, a pressure imbalance is caused within the siphon tube 216 so as to cause oil within the second sump 208 to pass through the siphon tube 216 into the first sump 206. In an embodiment, upon the drain plug being removed at 502, oil within the first segment 218 of the siphon tube 216 flows out of the first segment 218 and causes the pressure imbalance, which includes a pressure reduction in the second segment 222 of the siphon tube 216. In other embodiments, the oil pump 426 causes the pressure imbalance. The pressure reduction causes oil within the second segment 222 to flow from the second segment 222 through the third segment 228 and into the first segment 218. The oil then flows out of the first segment 218, into the first sump 206, and through the drain hole 212. The oil within the second sump 208 continues to flow through the second segment 222, the third segment 228, and the first segment 218 of the siphon tube 216 until a level of oil within the second sump 208 falls below the inlet 224 of the siphon tube 216.

[0042] As utilized herein, the terms “approximately,” “about,” “substantially,” and similar terms are intended to have a broad meaning in harmony with the common and accepted usage by those of ordinary skill in the art to which the subject matter of this disclosure pertains. It should be understood by those of skill in the art who review this disclosure that these terms are intended to allow a description of certain features described and claimed without restricting the scope of these features to the precise numerical ranges provided. Accordingly, these terms should be interpreted as indicating that insubstantial or inconsequential modifications or alterations of the subject matter described and claimed are considered to be within the scope of the invention as recited in the appended claims.

[0043] It should be noted that the terms “example” and “exemplary” as used herein to describe various embodiments are intended to indicate that such embodiments are possible examples, representations, and/or illustrations of possible embodiments (and such term is not intended to connote that such embodiments are necessarily extraordinary or superlative examples).

[0044] It is important to note that the construction and arrangement of the various exemplary embodiments are illustrative only. Although only a few embodiments have been described in detail in this disclosure, those skilled in the art who review this disclosure will readily appreciate that many modifications are possible (e.g., variations in sizes, dimensions, structures, shapes and proportions of the various elements, values of parameters, mounting arrangements, use of materials, colors, orientations, etc.) without materially departing from the novel teachings and advantages of the subject matter described herein. For example, elements shown as integrally formed may be constructed of multiple parts or elements, the position of elements may be reversed or otherwise varied, and the nature or number of discrete elements or positions may be altered or varied. The order or sequence of any process or method steps may be varied or re-sequenced according to alternative embodiments. Other substitutions, modifications, changes and omissions may also be made in the design, operating conditions and arrangement of the various exemplary embodiments without departing from the scope of the present invention.

What is claimed is:
1. An oil pan assembly, comprising:
   an oil pan defining first and second sumps, the first sump having a first lower surface, the second sump having a second lower surface, the second lower surface elevated along a vertical axis relative to the first lower surface; and
   a siphon tube extending from an inlet positioned in the second sump to an outlet positioned proximate a drain hole in the first sump, the siphon tube configured to automatically transmit oil from the second sump to the first sump upon oil being drained from the drain hole
2. The oil pan assembly of claim 1, wherein the siphon tube is configured to operate as a self-priming siphon to transmit oil from the second sump to the first sump.
3. The oil pan assembly of claim 1, wherein the oil pan consists of a single drain hole.

4. The oil pan assembly of claim 1, wherein the siphon tube includes a first segment positioned in the first sump, a second segment positioned in the second sump, and a third segment connecting the first and second segments, the third segment extending over a raised portion of the oil pan between the first and second sumps, wherein the first segment defines the outlet and the second segment defines the inlet.

5. The oil pan assembly of claim 4, wherein the siphon tube is configured such that, upon oil being drained from the drain hole, oil within the first segment flows out of the first segment and causes a pressure reduction in the second segment, the pressure reduction causing oil within the second segment to flow through the third segment and into the first segment, wherein oil within the second sump continues to flow through the second segment, the third segment, and the first segment until a level of oil within the second sump falls below the inlet.

6. The oil pan assembly of claim 4, wherein the first segment is positioned at a non-zero angle relative to the vertical axis.

7. The oil pan assembly of claim 4, wherein the second segment is positioned at a non-zero angle relative to the vertical axis.

8. The oil pan assembly of claim 4, wherein the third segment is welded to the raised portion.

9. The oil pan assembly of claim 1, wherein the outlet is shaped at an angle such that the outlet is substantially parallel with the first lower surface.

10. The oil pan assembly of claim 1, wherein the inlet is shaped at an angle such that the inlet is substantially parallel with the second lower surface.

11. The oil pan assembly of claim 1, wherein the siphon tube includes a first segment positioned in the first sump, a second segment positioned in the second sump, a third segment connecting the first and second segments and extending over a raised portion of the oil pan between the first and second sumps, a fourth segment extending from the first segment within the first sump, and a fifth segment extending from the second segment within the second sump, wherein the fourth segment defines the outlet and the fifth segment defines the inlet.

12. The oil pan assembly of claim 11, wherein the first and second segments are substantially parallel with the vertical axis, and wherein the fourth and fifth segments are substantially perpendicular to the vertical axis.

13. The oil pan assembly of claim 12, wherein the outlet is shaped at an angle so as to discharge oil towards the drain hole.

14. The oil pan assembly of claim 12, wherein the outlet includes a plurality of drainage holes positioned above the drain hole.

15. An oil pan assembly, comprising:

- an oil pan defining first and second sumps, the first sump having a first lower surface, the second sump having a second lower surface, the second lower surface elevated along a vertical axis relative to the first lower surface;
- a suction tube positioned within the first sump;
- a siphon tube including a first segment positioned within the first sump, a second segment positioned within the second sump, and a third segment fluidly coupling the first and second segments;
- a crossover tube fluidly coupling the suction tube and the siphon tube; and
- an oil pump operatively coupled to the suction tube, the oil pump configured to cause a pressure differential within each of the suction tube and the siphon tube to draw a fluid through each of the suction tube and the siphon tube.

16. The oil pan assembly of claim 15, wherein the first segment of the siphon tube includes an outlet, and wherein the fluid to be drawn through the siphon tube is to be discharged into the first sump through the outlet.

17. The oil pan assembly of claim 15, wherein the fluid to be drawn through the siphon tube is to be discharged into the suction tube via the crossover tube.

18. The oil pan assembly of claim 15, wherein the first sump includes a drain hole, and wherein the oil pump is configured to transfer oil from within the second sump to the first sump to facilitate draining of the oil from the second sump through the drain hole.

19. A method for draining oil from an oil pan having first and second sumps, comprising:

- removing a drain plug from a drain hole in the first sump;
- collecting oil that is drained from the drain hole;
- causing a pressure imbalance within a siphon tube so as to cause oil within the second sump to pass through the siphon tube and into the first sump.

20. The method of claim 19, wherein the causing of the pressure imbalance occurs automatically upon the removing of the drain plug.

21. The method of claim 19, wherein the first sump defines a first lower surface and the second sump defines a second lower surface, the second lower surface elevated along a vertical axis relative to the first lower surface.

22. The method of claim 19, wherein the siphon tube includes a first segment positioned in the first sump, a second segment positioned in the second sump, and a third segment connecting the first and second segments, the third segment extending over a raised portion of the oil pan between the first and second sumps, wherein the first segment defines an outlet and the second segment defines an inlet.

23. The method of claim 22, wherein, the pressure imbalance includes a pressure reduction in the second segment, the pressure reduction causing oil within the second segment to flow through the third segment and into the first segment, wherein oil within the second sump continues to flow through the second segment, the third segment, and the first segment until a level of oil within the second sump falls below the inlet.

24. The method of claim 19, wherein the oil pan consists of a single drain hole.