

**CATALOG**

FOR

**TOP DRIVE SPARE PARTS**

**Sapwells Petroleum Machinery Limited**

Sapwells Petroleum Machinery Limited is a professional spare parts supplier and overhaul contractor of Varco ,BPM & Tianyi top drives. We provide following spare parts:

- ✧ Conventional Consumables, Seals
- ✧ All kind of Mechanical & Hydraulic Repair Kits
- ✧ Electrical Parts, Fuses, Overloads, Contactors,
- ✧ Connectors, Electronic Control Boards
- ✧ Other sub-assemblies, such as Washpipe Assembly,
- ✧ IBOP Assembly, Hydraulic Pump Assembly, Lube Pump
- ✧ Assembly, Hydraulic Manifold Assembly, etc

## 1. Varco top drive parts



IBOP Repair Kit, P/N:114859,99498-2



UPPER IBOP, P/N:110103



CAM,FOLLOWER 6", P/N:30155438  
& BEARING, P/N: 30158767-04



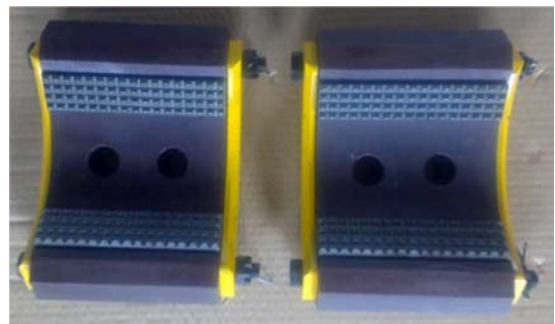
LOWER IBOP; P/N:114706



S-PIPE,RH,WELDMENT, P/N:117063



JAW ASSY,P/N:30125052,  
30125051,85786,80492



LINER,STABILIZER, P/N: 30158690



STABILIZER,FRONT, P/N: 30124898



SHELL, ACUTATOR, IBOP, P/N:110042



STAB, GUIDE ASSY, P/N:125158,125157,  
118250,30123114



Repair Kit, P/N: 117381,118563,30151951,  
30151961,112626,51300-226-B,  
110056,110061-326



Manifold assembly, clamp  
cylinder, P/N:118511



Manifold, P/N:109547-2





CARRIAGE,30.00" SETBACK,  
P/N:124535,124536



CRANK ASSEMBLY,IBOP,P/N:98898



ELEMENT FILTER,P/N: 30111013-KIT,30173216- KIT



Other accessories



Hydraulic motor of rotating head



Elevator link tilted oil cylinder,DV3HB00H101



Cable and plug, 17240-B-15FT



Variable pump



Filter assembly

Manifold



Plugs



Electronic board



Varco top drive overhaul



### Varco TDS11SA spare parts list

ITEM	NAME & DESCRIPTION	PN
1	(MT)COVER,BODY,MAIN	109518
2	MAIN SHAFT	121131
3	(MT)PUMP,LUBE,GEARBOX,ASSY,TDS9S	117603-1
4	HEAT EXCHANGER	30122104
5	BRACKET,HEAT-EXCHANGER	122249
6	GEAR,BULL,HELICAL	30158574
7	GEAR,COMPOUND,HELICAL	30158573
8	SLEEVE, MAINSHAFT, TDS11	110040-1
9	(MT)SLEEVE,FLANGED,7.87ID,300SS	109591
10	(MT)SLEEVE,STEM,STD.BORE,TDS	91829-1
11	(MT)BEARING,ROLLER,SPHERICAL,80X170	117987
12	(MT)BEARING,ROLLER,TAPER,200X310MM	109519
13	(MT)BEARING,THRUST,21.5OD	30120556
14	(MT)BEARING,ROLLER,CYLINDRICAL,200X360MM	109521
15	(MT)BEARING,ROLLER,CYLINDRICAL,75X160MM	109522
16	RETAINER,BEARING,UPPER STEM,TDS	30176112
17	BLOCK,MOUNTING,RUBBER (KIT)	122248
18	(MT)CALIPER,DISC BRAKE	109528
19	(MT)ROTOR,BRAKE	109555
20	(MT)GASKET,COVER,ACCESS	110011
21	GASKET,BLOWER,7.6X12.5	110014
22	(MT)GASKET,BLOWER,SCROLL	110112
23	GASKET,DUCT/BLOWER	110110-1
24	(MT)GASKET,MOTOR-PLATE	110116
25	(MT)NOZZLE,SPRAY,.86GPM	88990-9
26	(MT)NOZZLE,SPRAY,1.3GPM	88990-10
27	(MT)TUBE,BEARING,LUBE,A36	109566
28	ADAPTER,S-TUBE	109523
29	(MT)TDS9S SHIM,BRG RETAIN.002	109586-1
30	(MT)TDS9S SHIM,BRG RETAIN.003	109586-2
31	(MT)TDS9S SHIM,BRG RETAIN.005	109586-3
32	(MT)TDS9S SHIM,BRG RETAIN.010	109586-4
33	(MT)TDS9S SHIM,BRG RETAIN.031	109586-5
34	SHIM,RESERVOIR,.002 TDS9S	110147-1
35	SHIM,RESERVOIR,.005	110147-2
36	SHIM,RESERVOIR,.010 TDS9S	110147-3
37	SHIM,RESERVOIR,.031 TDS9S	110147-4
38	PLUG, EXT PIPE 1/16-27 NPT	53000-1-S
39	REDUCER, PIPE-INT/EXT	56710-4-2-S
40	VALVE,RELIEF,TDS	141304
41	ISOLATOR,UPPER BEARING	30173521
42	(MT)FERRULE, SAFETY CABLE	110078-FL2

<b>43</b>	(MT)CABLE, SAFETY .032	110078-L36
<b>44</b>	(MT)CABLE, SAFETY	110078-L18
<b>45</b>	(MT)TUBE,ASSY,BRAKE	110172
<b>48</b>	(MT)RING,RETAINING	109538
<b>49</b>	(MT)RING,RETAIN,INT,PHM3I,(TDS9S)	96648-1
<b>50</b>	O-RING, "S" TUBE, TDS	51300-425-B
<b>51</b>	(MT)OIL SEAL(VITON),STD.BORE,TDS	91250-1
<b>52</b>	SEAL,POLYPAK,3.875,STD.BORE,TDS	98291 +30
<b>53</b>	LINER,STEM,UPPER	98290
<b>54</b>	SHIELD, BEARING,SMALL BORE, TDS 4S	30154362
<b>55</b>	RING,SPACER	109539
<b>56</b>	(MT)PIN,DOWEL,1.25DIAx3.8,MS27	110039
<b>57</b>	TUBE ASSY,BRAKE, BOTTOM	30171956
<b>58</b>	TUBE ASSY,BRAKE, TOP	30171957
<b>59</b>	RETAINER,LANDING,COLLAR	118378
<b>60</b>	COLLAR, LANDING (2 HALVES =QTY 1)	118377
<b>61</b>	PIN,DOWEL	51216-24
<b>62</b>	(MT)O-RING,.275x50.5	110008
<b>63</b>	O RING	51300-016-B
<b>64</b>	O-RING	51300-223-F
<b>65</b>	O-RING	51300-258-B
<b>66</b>	O-RING	51300-277-B
<b>67</b>	O-RING	51300-279-B
<b>68</b>	O-RING	51300-385-F
<b>69</b>	O-RING	51300-387-F
<b>70</b>	PLUG,ORIFICE,.071,PHM3I	94041-18
<b>71</b>	PLUG, EXT PIPE-CTSK HEX	53000-2-C
<b>72</b>	PLUG, EXT PIPE-CTSK HEX	53000-4-C
<b>73</b>	PLUG, EXT PIPE-CTSK HEX	53000-8-C
<b>74</b>	PLUG, EXT PIPE-CTSK HEX	53000-12-C
<b>75</b>	PLUG, SQ HD MAGNETIC	53003-16
<b>76</b>	TEE, SWIVEL INT 37/37/37	56525-4-4-S
<b>77</b>	ELBOW, 45DEG EXT PIPE/37	56502-2-4-S
<b>78</b>	SCREW, CAP-HEX HD DRILLED	50012-16-C5D
<b>79</b>	SCREW, CAP-HEX HD DRILLED	50012-26-C5D
<b>80</b>	(MT)LOCKNUT, BEARING	51218-18
<b>81</b>	(MT)LOCKWASHER, BEARING	51217-18
<b>82</b>	LOCKWIRE, .051 DIA (UK 150FT/CAN,US 143FT/CAN)	Z6001-CAN
<b>83</b>	WIRE,LOCK,.047DIA,MSXX (169 FT PER CAN)	Z6000.9-CAN
<b>84</b>	SCREW, CAP-HEX HD DRILLED	50006-18-C5D
<b>85</b>	TIE, CABLE (TY-RAP)	53300-526
<b>86</b>	TEE, 37/37 SWIVEL INT 37	56526-4-4-S
<b>87</b>	SPRING,TORSION,TDS9	122955
<b>88</b>	ADAPTER,SHAFT,ENCODER,TDS9	122944



<b>89</b>	BELT,TIMING,ENCODER,TDS9	120117-3
<b>90</b>	PULLEY,TIMING,.47BORE	122946
<b>91</b>	PULLEY,TIMING,.38BORE	120118
<b>92</b>	ENCODER,DIGITAL. LOW TEMP	30122725-HE
<b>93</b>	PULLEY,TENSIONER,ENCODER,TDS9	122947
<b>94</b>	TDS9S CMPD GEAR ALGN TOOL	110034
<b>95</b>	PIN, DOWEL (PSDS)	51216-12
<b>96</b>	GEAR,ADAPTER,LINK,ROTATING	30173157
<b>97</b>	O-RING	51300-273-B
<b>98</b>	O-RING	51300-381-B
<b>99</b>	RING,GLYD,11.0DIA-ROD	30119319
<b>100</b>	RING,THRUST,.125x7.75x10.0	30119357
<b>101</b>	RING,GLYD,11.5 DIA-ROD(S48130-340A-29)	30119143
<b>102</b>	RING,GLYD,10.0 DIA-ROD	118375
<b>103</b>	SEAL,LIP 8.25x9.5x.62	77039
<b>104</b>	SCREW,CAP-HEX-HEAD,1.25X6.5	30114594
<b>105</b>	NUT, HEX-SLTD, (PSDS)	50520-C
<b>106</b>	PIN, COTTER	51405-24
<b>107</b>	SCREW, CAP-HEX HD (UNC)	50012-20-C8D
<b>108</b>	WASHER, LOCK-REGULAR (ALT P/N: 025062)	50912-C
<b>109</b>	SEAL,WIPER,11.0DIA-ROD	119547
<b>110</b>	RING,RETAINER,EXTERNAL	30117775-2
<b>111</b>	BUSHING,SLEEVE,SPLIT,1.25X10.0DIA	119358
<b>112</b>	FTG, GREASE, 1/8"NPT	53201+50
<b>113</b>	CONN, O-RING BOSS/37	56529-8-8-S
<b>114</b>	PLUG, O-RING BOSS	56531-8-S
<b>115</b>	BUSHING,SLEEVE,1.0X1.25	115176
<b>116</b>	BEARING,SINTERED,BRONZE,FLANGED	112754-130
<b>117</b>	SHAFT,PIVOT LOCK STUD,,1.0-8NCx4.0, MS27	124029+30
<b>118</b>	PIN,SPIROL	51222-05-12
<b>119</b>	COMPOUND, LOCKING-10CC	53200-271
<b>120</b>	CONN, O-RING BOSS/37	56529-8-6-S
<b>121</b>	CONN, O-RING BOSS/37	56529-8-4-S
<b>122</b>	RING,PISTON	30177233
<b>123</b>	(MT)ADAPTER,LINK,ROTATING,500TON (T)	30173159-LT
<b>124</b>	HUB,BRAKE	109554
<b>125</b>	GEAR,HELICAL,PINION	117939
<b>126</b>	PIN,DOWEL	51208-14
<b>127</b>	PINION GEAR INSTALLATION SUPPLIES	115040
<b>128</b>	BEARING,AC-MOTOR,NONDRIVE-END TDS9S	108235-2
<b>129</b>	SEAL,DRIVE END	30174875-3
<b>130</b>	SEAL,AC-MOTOR,NONDRIVE-END TDS9S	108235-4
<b>131</b>	SPACER,BEARING,MOTOR TDS9S	110190
<b>132</b>	RETAIN-RING, TDS9S	110189

<b>133</b>	SEAL,SHAFT,INTERNAL	30174875-13
<b>134</b>	BEARING,DRIVE,END,MOTOR,AC,TDS9 SOH=0 SEE TEX EA	108235-15
<b>135</b>	CARTRIDGE,VALVE,RELIEF TDS9S	94522-1EN
<b>136</b>	RING, RETAINING - INTERNAL	53500-225
<b>137</b>	FITTING, GREASE STRAIGHT STAINLESS STEEL	53201-SS
<b>138</b>	O-RING	51300-226-B
<b>139</b>	SHOT PIN,PH-100	30173958
<b>140</b>	BEARING,SINTERED,BRONZE,FLANGED	112754-130
<b>141</b>	SEAL,PISTON (same as 110061)	110061-326
<b>142</b>	SEAL,ROD,1.5BORE	110056
<b>143</b>	GEAR,PINION,SHOT PIN,PH-100	30156256
<b>144</b>	GEAR,COMPOUND 40 X 25 (MACHINED)	30156250
<b>145</b>	FLANGE BUSHING,SHOT PIN,PH-100	30151961
<b>146</b>	HYD MOTOR,MODIFIED LOW SPEED HIGH TORQUE	30158011
<b>147</b>	BEARING,RADIAL,LIGHT	30151954
<b>148</b>	SLEEVE,SHOT PIN,PH-100	30151951
<b>149</b>	CARTRIDGE,VALVE,RELIEF,PHM3I	94520-1AN
<b>150</b>	ASSY,WASH-PIPE,3"BORE, 7500 PSI	30123290
<b>151</b>	NUT, LUG, 4.0, S-PIPE	81158
<b>152</b>	SEAL,LIP,4.0	114833
<b>153</b>	S-PIPE,OUTSIDE,RH,WELD,7500,TDS9 (T)	117063-7500
<b>154</b>	SEAL,LIP,HAMMER UNION,3.0 +NN	91923
<b>155</b>	ASSY,PLUG,3"FIG 1002 (T)	M614002641
<b>156</b>	PROTECTOR,PIPE,RUBBER,4.5x6.75 (SEE TEXT	92426+30
<b>157</b>	S-PIPE,ELBOW 7500	84617
<b>158</b>	BLADDER,RESERVOIR TDS9S 5 gallon	110191-501
<b>159</b>	O-RING	51300-038-B
<b>160</b>	PDM HPU STRAINER,SUMP 1.0	107865-16
<b>161</b>	BREATHER,RESERVOIR	71613
<b>162</b>	VALVE,RELIEF,.750NPT.	30113165
<b>163</b>	VALVE,SOLENOID,AT05	112554-D2-BT
<b>164</b>	VALVE,SOLENOID,AT05	112554-J2-BT
<b>165</b>	FLOW CONTROL	128694-6-031
<b>166</b>	ORIFICE,PLUG,1.8MM	93018-18
<b>167</b>	PLUG,ORIFICE,.250 NPT(.071)(PRS8)	110844-18
<b>168</b>	ORIFICE PLUG, #10-32X.055	93018-14
<b>169</b>	PLUG,ORIFICE	93018-08
<b>170</b>	CARTRIDGE, VALVE, RELIEF, TDS9S	111664-1EN
<b>171</b>	TDS9S VALVE CART,RED/REL	109858-1AN
<b>172</b>	PLUG,CAVITY,TDS9S	93667-M13
<b>173</b>	BALANCED POPPET VENTABLE RELIEF VALVE	P614000063-1AN
<b>174</b>	TDS9S VALVE CART,CHECK	107029-175N
<b>175</b>	PDM VALVE CART,DIFF UNLDG	107028-1ANB

<b>176</b>	TDS9S REDUCING VALVE CART,RED/REL	99353-1AN
<b>177</b>	VALVE,CONTROL,FLOW	98402-800D
<b>178</b>	TDS9S VALVE CART,CHECK	94537-130N
<b>179</b>	TDS9S VALVE CART,CHECK	94536-230N
<b>180</b>	CARTRIDGE,CHECK,PHM3I	94536-14N
<b>181</b>	CARTRIDGE,LOGIC,PHM3I	94534-1CXN
<b>182</b>	CARTRIDGE,VALVE,PRESSURE RELIEF TDS9S	94520-1NN
<b>183</b>	PLUG, CAVITY	93667-M11
<b>184</b>	VALVE W/REWORKED HANDLE, DIRECTIONAL CONTRO EA	30171921
<b>185</b>	KIT, FILTER, GEAR-OIL (FILTER AND O-RING)	30111013-KIT
<b>186</b>	ELEMENT,FILTER,HYD	30173216-1
<b>188</b>	DIRT ALARM	30111013-3
<b>189</b>	SEALS,ACCUM,6"	30124575
<b>190</b>	SEAL KIT FLOOR 4" ID ACCUMULATOR	87605-1
<b>191</b>	SEALS,ACCUM,2"	30124576
<b>192</b>	HOSE ASSY	59024P230030
<b>193</b>	HOSE,ASSY,PRESSURE/MANIFOLD 71"	30124191-500
<b>194</b>	HOSE ASSY	59046P08X036
<b>195</b>	VALVE,LOGIC,NORMALLY OPEN	30176409-4XN
<b>196</b>	SEQUENCE VALVE CARTRIDGE	30107236-1DN
<b>197</b>	TDS9S VALVE CART,FLOW CTL	109302-130NC
<b>198</b>	TUBE,ASSY,MANIFOLD/LOAD-STEM	115422
<b>199</b>	TUBE ASSY	30178403
<b>200</b>	COUPLING,PUMP,HYDRAULIC TDS9S	30114016
<b>201</b>	TDS9S PUMP,HYDRAULIC VANE	107783-5C11R
<b>202</b>	TUBE ASSY, LINE ADAPTER	30125100
<b>203</b>	BRACKET,MOUNTING,LINK-TILT	30123685
<b>204</b>	HOSE ASSY	59043P230031
<b>205</b>	HOSE ASSY	59024P230046
<b>206</b>	NUT, HEX-SLTD, (UNC-2B)	50514-C
<b>207</b>	TUBE ASSY,LINK ADAPTER/MANIFOLD	30125097
<b>208</b>	TUBE ASSY, LINK ADAPTER/ MANIFOLD	30125094
<b>209</b>	ASSY,TUBE,LINK-ADAPTER/MANIFOLD	125098+30
<b>210</b>	HOSE ASSY	59024P170025
<b>211</b>	HOSE ASSY.	59024P170021
<b>212</b>	WASHER, FLAT	50814-N-C
<b>213</b>	PIN,RETAINER,COLLAPSIBLE LINK	30170045
<b>214</b>	HOSE ASSY	59025P23G028
<b>215</b>	HOSE ASSY	59043P230042
<b>216</b>	PIN, COTTER 5/32 X 2 1/2	51435-20-S
<b>217</b>	WASHER, LOCK-HEAVY	51012-C
<b>218</b>	NUT, HEX-HEAVY (UNC-2B)	50412-C
<b>219</b>	COLLAPSABLE LINK 2	30170446

<b>220</b>	COLLAPSABLE LINK 1	30170445
<b>221</b>	PIN, COTTER	51402-10-S
<b>222</b>	ACTUATOR,ASSY	30119592
<b>223</b>	WASHER, LOCK, TAB, .56 DIA	107052
<b>224</b>	CRANK,ASSY,EXTERNAL	98898+30
<b>225</b>	HOSE,ASSY	59044P230074
<b>226</b>	HOSE ASSY	59044P230073
<b>227</b>	ASSY,LWR IBOP,65/8X65/8W/REL GRV-STD, C/W CERT	114706-500
<b>228</b>	UPPER IBOP, PH50 ASSY, 6-5/8 X 6-5/8, C/W CERT	110103-500
<b>229</b>	U-BOLT, .75DIA,MS21	119139
<b>230</b>	CLAMP,LINK	119122
<b>231</b>	BUSHING,SLEEVE,1.00x1.50,FIBERGLIDE	118844-16-24
<b>232</b>	TORQUE ARRESTOR PH 75	30157226
<b>233</b>	BUSHING	30184320-502
<b>234</b>	PIN, COTTER TDS-S	51435-16-S
<b>235</b>	NUT, HEX-SLTD (UNC-2B)	50516-S
<b>236</b>	SCREW,DRILLED SHANK	30157426
<b>237</b>	NUT, HEX-SLTD, (UNC-2B)	50512-C
<b>238</b>	PIN, COTTER	51402-12
<b>239</b>	CAM FOLLOWER	71847
<b>240</b>	HEX NUT, MODIFIED	30172060
<b>241</b>	WASHER, LOCK REGULAR	50914-C
<b>242</b>	SCREW, CAP-HEX HD DRILLED	50008-12-C5D
<b>243</b>	BUSHING,SLEEVE,1.38x1.38,FIBERGLIDE	118844-22-22
<b>244</b>	BUSHING,SLEEVE,1.00x0.75,FIBERGLIDE	118844-16-12
<b>245</b>	BUSHING,SLEEVE,1.00x0.50,FIBERGLIDE	118844-16-08
<b>246</b>	PIVOT PIN, PH-75, 3.38 NOM.	30158766-1
<b>247</b>	PIN,CYLINDER MOUNTING, PH-50	30172154
<b>248</b>	BOTTOM PLATE,TORQUE ARRESTOR	30157294
<b>249</b>	SPRING,COMPRESSION PH-75	30157308
<b>250</b>	COMPRESSION SPRING 1.95	76443
<b>251</b>	GUIDE, ARM	76442
<b>252</b>	SCREW,CAP-SOC HD	50108-14-C
<b>253</b>	KEY, .50 SQUARE x 2.8, 1018 STL	16532+50
<b>254</b>	JAW,NC50,ASSY,PH100	30125052
<b>255</b>	SPRING,COMPRESSION,1.0x2.0x3.0	79179
<b>256</b>	LINER, STABILIZER	30158690
<b>257</b>	FTG, GREASE, 1/8"NPT	53201+50
<b>258</b>	WIPER, ROD	72221
<b>259</b>	SEAL ROD	72220
<b>260</b>	SEAL,PISTON	72219
<b>261</b>	KIT,HI-LOAD,PISTON,SEAL	108894-P32
<b>262</b>	KIT,BODY-SEAL,PARKER-CYLINDER*SCD*	108894-B32
<b>263</b>	KIT,ROD-SEAL,BRONZE-GLAND	108894-G13



264	GLAND WRENCH PARKER CYLINDER	108894-Y2
265	SPANNER WRENCH PARKER CYL.	108894-Z703
266	SEAL,PISTON	108894-P25
267	SEAL,LIP,PISTON (Same as 16701-3,87018-2)	108894-L25
268	SEAL,KIT,BODY(For-118312-Cyl)*SCD*	108894-B25
269	O-RING	51300-210-B
270	TDS9S VALVE CART,FLOW CTL	109302-130NC
271	TDS9S VALVE CART,CHECK	94537-130N
272	PLUG,ORIFICE	93018-08
273	ORIFICE, PLUG,. 125NPT,.142"DIA	94042-36
274	COUNTERBALANCE VALVE CARTRIDGE	30173386
275	CARTRIDGE,VALVE,CHECK,PO TDS9S	93547-1B30N
276	HOSE,ASSY	59144P290099
277	HOSE,ASSY	59124P290093
278	HOSE,ASSY,C'BAL,TDS9S	59143P290086
279	COUNTER BALANCE PIN	30172176
280	CLEVIS PIN, COUNTERBALANCE	30172176-502
281	NUT, HEX-SLTD (UNCB-2B)	50516-C
282	PIN, COTTER TDS	51437-16-S
283	PISTON SEALS	108894-P40
284	BODY SEALS(SAME-AS-13718-31)	108894-B40
285	SEAL,ROD	108894-G20
286	WRENCH,GLAND	108894-Y4
287	WRENCH,SPANNER	108894-Z677
288	BEAM, C'BAL, TDS9S	117076
289	BUSHING SLEEVE 4.25 ID X 5.25 BRZ	109507
290	PIN,BAIL,4.25DIAX10.15,MS00009	109506
291	FTG, GREASE, 1/8"NPT	53201+50
292	NUT,HEX,JAM,2.0-12UN	80569+30
293	BUSHING,FLANGED,2.75X1.5,BRZ	109944
294	NUT, HEX-JAM (UNF-2B)	55324-C
295	BEARING, CAM FOLLOWER	30158767-04
296	CAM,FOLLOWER 6"	30155438
297	KIT,CARRIAGE,FIELD UPGRADE,TDS-9/11SA	30184530
298	MOTOR,7.5kW/10HP,ATEX,EEExde,LOHER,TDS-11	30178347-600-60-120
299	MOTOR,3kW/4HP,ATEX,EEExde,LOHER,TDS-11	30178348-600-60-120
<b>ITEM</b>	<b>NAME &amp; DESCRIPTION</b>	<b>PN</b>
1	O-RING	51300-381-B
2	RING, GLYD,11.0 DIA-ROD	30119319
3	GLYD, RING, ROTARY, 11.5 ROD	30119143
4	GLYD, RING, ROTARY, 11.0 ROD	118375
5	SEAL, WIPER	119547
6	RING, RETAINER, EXTERNAL	30117775

<b>7</b>	PISTON RING	30173156
<b>8</b>	BUSHING, TORCITE	119358
<b>9</b>	RING, THRUST	119357
<b>10</b>	O-RING	51300-273-B
<b>11</b>	GASKET COVER	11032
<b>12</b>	BREATHER RESERVOIR	71613
<b>13</b>	BLADDER RESERVOIR 4GALLON	110191-500
<b>14</b>	BUSHING, FLANGED 2. 15 ID	109944
<b>15</b>	BEARING, CAM FOLLOWER	30158767
<b>16</b>	WASHER, LOCK, HI-COLLAR, 2" DIA	51132-C
<b>17</b>	CAM FOLLOWER 6" DIA	30155438
<b>18</b>	PK, 4" , H592851H000	57447904
<b>19</b>	PK, 6" , K666025K000	57747903
<b>20</b>	KIT, ROD SEAL, BRONZE-GLAPN	108894-G13
<b>21</b>	KIT, HI-LOAD, PISTON, SEAL	108894-P32
<b>22</b>	KIT, BODY-SEAL, PARKER-CYLINDER	108894-B32
<b>23</b>	SEAL, WIPER	72221
<b>24</b>	SEAL, ROD	72220
<b>25</b>	SEAL, PISTON	72219
<b>26</b>	(MT) BEARING, ROLLAR, CYLINDRICAL	109522
<b>27</b>	GEAR, BULL, HELICAL	30158574
<b>28</b>	GEAR, COMPOUND, HELICAL	30158573
<b>29</b>	(MT) BEARING, ROLLAR, SPHERICAL	117987
<b>30</b>	(MT) SLEEVE, STM, STDBORE, TDS	91829-1
<b>31</b>	ISOLATOR, UPPER, RETAINING	30173521
<b>32</b>	(MT) OIL SEAL (VITON), STD, BORE	91250-1
<b>33</b>	(MT) RING RETAINING, EXTERNAL	109538
<b>34</b>	(MT) RING, RETAIN, TNT, PHM31	96648-1
<b>35</b>	(MT) NOZZLE, SPRAY, 1.3 GPM	88990-10
<b>36</b>	SEAL, POLYPAK, 3.875 STD, BORE	98291-30
<b>37</b>	LINER, STEM, UPPER	98290
<b>38</b>	(MT) BEARING, ROLLAR, CYLINDRICAL	109521
<b>39</b>	(MT) SLEEVE, FLANGED	109591
<b>40</b>	RING, THRUST	30119357
<b>41</b>	(MT) SLEEVE, MAIN SHAFT	110040
<b>42</b>	PUMP ASSEMBLY, GEARBOX LUBRICATION	117603
<b>43</b>	O-RING, MAINBODY/OIL GALLERY	51300-223-F
<b>44</b>	O-RING, MAINBODY/OIL PUMP ADAPTERS	51300-279-F
<b>45</b>	WASHER, LOCK REGULAR	50916-C
<b>46</b>	PIN, SPIRAL	51222-12-16
<b>47</b>	O-RING, COVER/BEARING, RETAINER	51300-277-13
<b>48</b>	TUBE ASSY PSVR	113985
<b>49</b>	TUBE RESERVOIR/PUMP	117091-500
<b>50</b>	TUBE DRAIN RESERVOIR	30113982-500

51	TUBE LUBE/HE ASSY TDS11	118409-500
52	SEAL KIT	109528-2
53	FRICTION PADS	109528-1
54	HYDRAULIC FILTER	30173216
55	TIE	16401-2
56	LUBE OIL FILTER	30111013
57	ROD SEAL ASSEMBLY	110056
58	ROD SEAL ASSEMBLY	110061-326
59	O-RING	51300-226-B
60	HOSE, ASSY	59144P290099
61	HOSE, ASSY	59124P290093
62	HOSE, ASSY, C' BAL, TDS9S	59143P290086
63	CONNECTOR	56529-4-6-S
64	TEST FITTING, SAE-4	93024-4SAE
65	TUBE ASSY, BRAKE	110172
66	TUBE ASSY, BRAKE, RIGHT	117116
67	TUBE ASSY, BRAKE, BOTTOM	30171956
68	TUBE ASSY, BRAKE, TOP	30171957
69	TUBE HEAT EXCHANGER-1/2 '	12247-1
70	TUBE HEAT EXCHANGER-1/2 '	12247-2
71	GUIDE ARM	76642
72	SPRING	76642
73	PIPE, WASH-3 INCH BORE	30123289
74	SEAL KIT PACKAGE	30123290
75	DIE, TONG	16401-2
76	TUBE, ASSY, ACCUMULATOR/ MANIFOLD	116690
77	TUBE, ASS, ACCUMULATOR	113984
78	TUBE, ASSY, PSVR	113985
79	ASSY, TUBE, LUBRICATOR-IN	30125104
80	TUBE, PRE-FILL,MANIFOLDM ASSY, TDS9	30114085-500
81	ASSY, TUBE, LUBE-PUMP-MANIFOLD/ FILTER	114090-502
82	TUBE, ASSY, MANIFOLD/ LOAD-STEM	30118405
83	TUBE, ASSY, MANIFOLD/ LOAD-STEM	30115421
84	TUBE, ASSY, MANIFOLD/ LOAD-STEM	115422
85	TUBE, ASSY, MANIFOLD/ LOAD-STEM	115423
86	TUBE, ASSY, ACCUMULATOR/ LOAD-STEM	118410
87	TUBE, ASSY, MANIFOLD/ LOAD-STEM	117570
88	TUBE, ASSY, MANIFOLD/ LOAD-STEM	30115425
89	ASSY, TUBE, LUBRICATOR-IN	30125104
90	ASSY, TUBE, LUBRICATOR-OUT	30125103
91	ROLLER	71847
92	BEARING, FLANGED	112754-130

## 2. BPM top drive parts



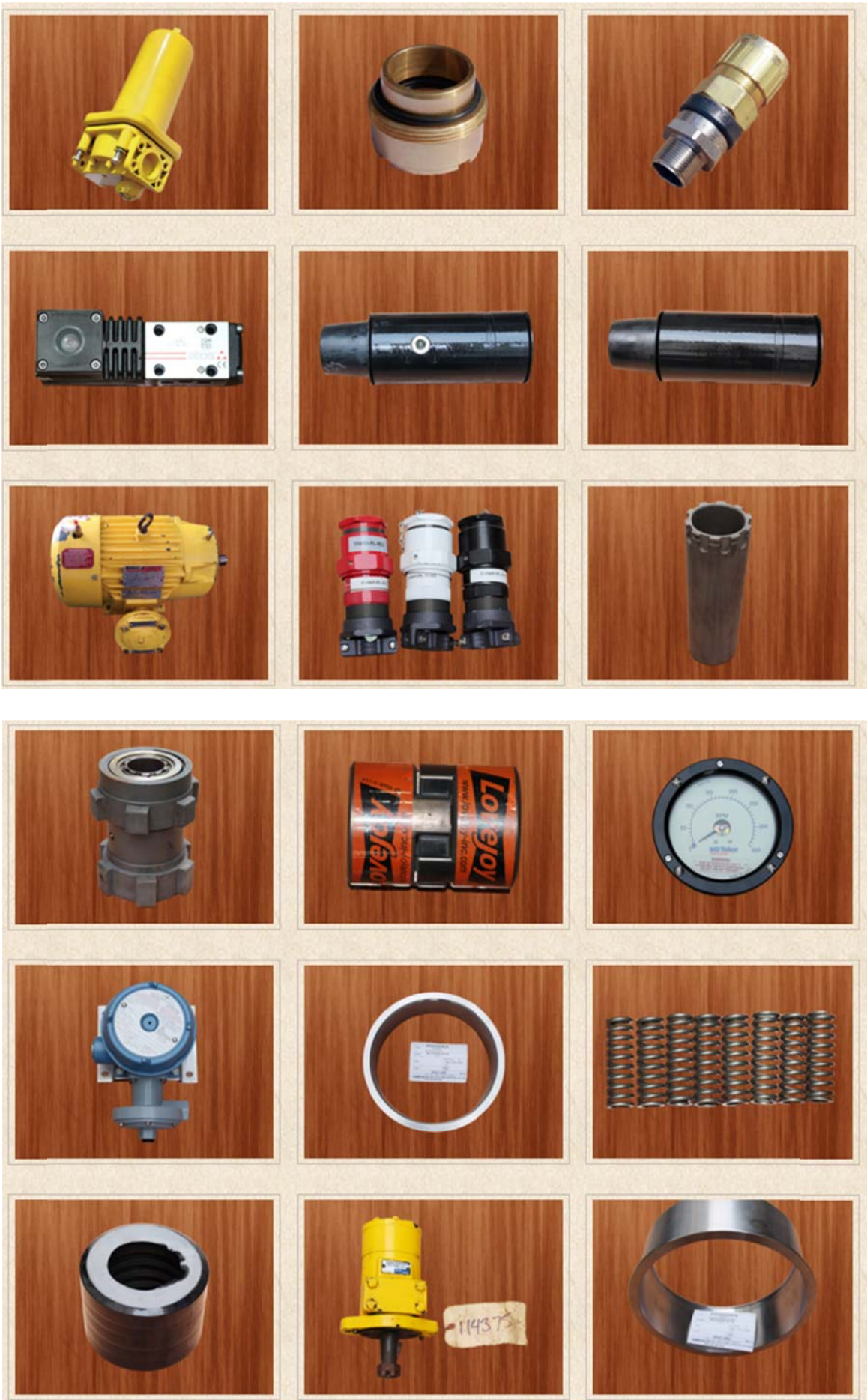
IBOP Repair Kit

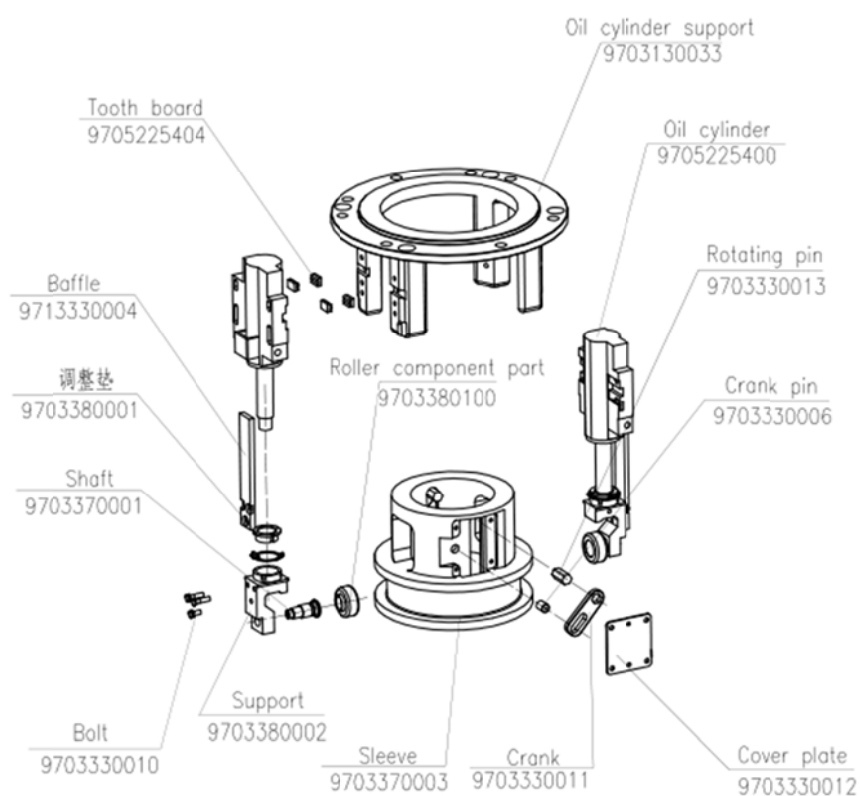
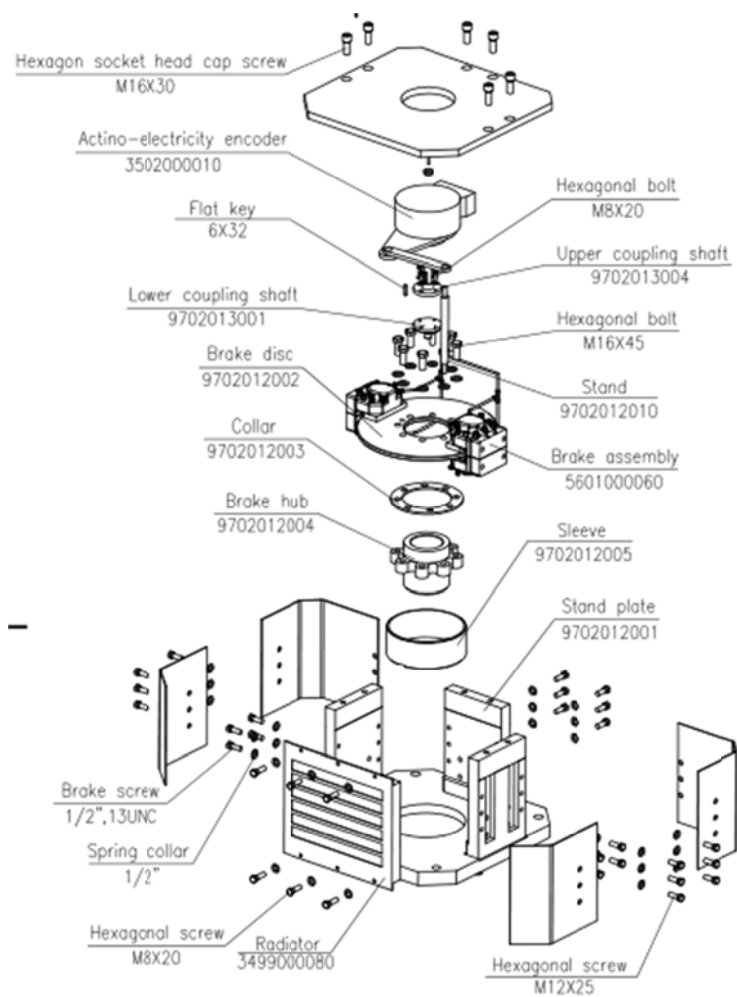


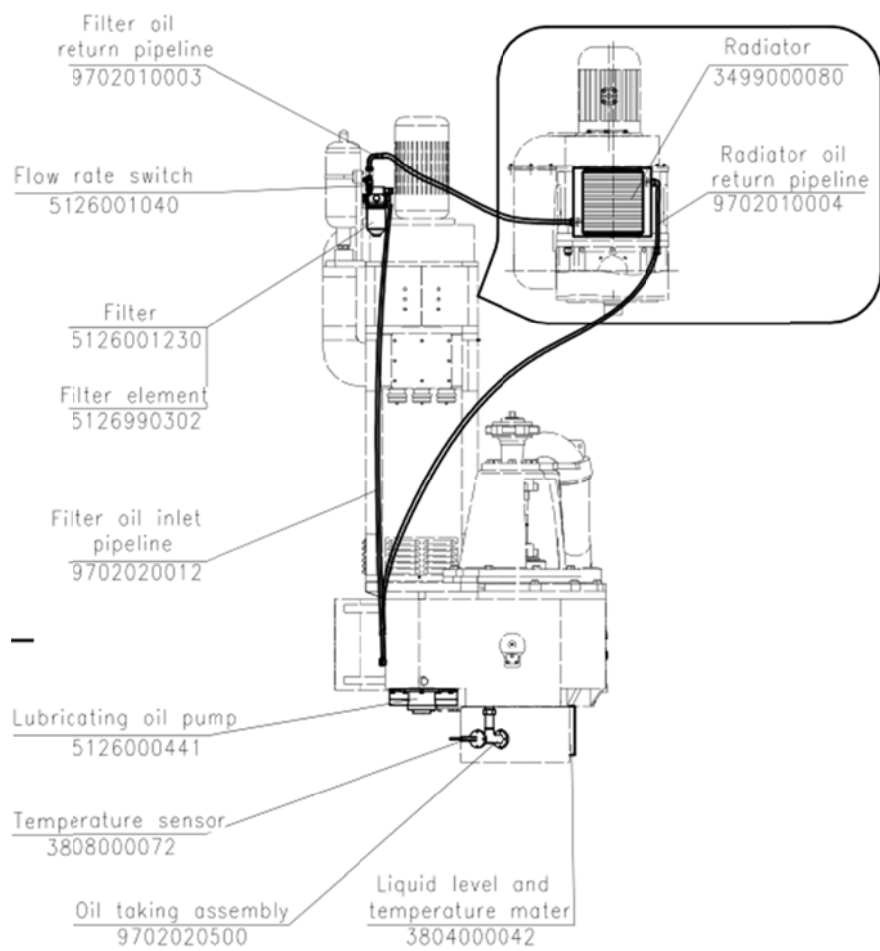
Gears











## BPM top drive Overhaul

