PRODUCTION OPERATIONS

# 2008 World survey of stimulaton vessels

## *Worldwide offshore marine vessels capable of self-propulsion*

**Frank Hartley, Drilling & Production Edtior**

**General notes:**
- Blank cells indicate "data not provided"
- Pump types common to all vessels in survey are quintiplex and triplex positive displacement pumps with Coflexip high-pressure line(s)
- Pump "Number" includes all pumps available
- Pump "Max Rate" includes all pumps available
- Pump "Max Pressure" is hightest rating of all pumps on rigs

| | | Region of operation | | | | | | | Statistics | | | | Above deck | | | | | Below deck | | | Tankage | | | Mixing equipment | | | | | | Navigational equipment | | | Safety equipment | | | | Pumping equipment | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Photo # Contractor and vessel name | Gulf of Mexico | Bay of Campeche | North Sea | West Africa | South America | Middle East | Southeast Asia | Total length (ft) | Total beam (ft) | Main engine horsepower (hp) | Cruising speed (kts) | Acid (gal) | Additive (gal or lb) | Gel/completion fluid (bbl) | Gas (gal) | Bulk (cu ft) | Proppant (lb) | Additives (gal) | Gel/completion fluid (bbl) | Proppant (cu ft or lb) | Frac (bbl) | Water (bbl) | Filter capability (b/m) | Gel on the fly capability? | Blenders (b/m) | Batch (bbl) | Acid (b/m) | Proppant (lbs per minute) | Frac (b/m) | Frac on the fly capability? | Thrusters (hp) | Dynamic positioning | Dynamic positioning type | Hose reel quick disconnect? | One button operation shutdown? | Quick disconnect work w/ power loss? | QA/QC lab on vessel? | Treatment line size (in.) | Treatment line length (ft) | Line pressure capability (psi) | Number of pumps | Total hydraulic horsepower (hhp) | Max rate (b/m) | Max pressure (psi) | Below deck pump capability (gpm) |
| | **Baker Oil Tools Rudy de Grood, 6023 Navigation Blvd, Houston, TX 77010; phone: (713) 924-9446; email: Rudy.degrood@bakerhughes.com** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | *RC Baker* | • | | | | | | | 224 | 54 | 4,000 | 10.5 | 28,000 | 12,000 | 530 | 10,000 | 2,000 | 250,000 | N/A | 4,000 | 750,000 | 6,040 | 11,600 | 16 | Yes | 60 | 110 | 15 | 16,000 | 50 | Yes | 700*** | Yes | DGPS-SATLOC + RF/DGPS | Yes | Yes | Yes | Yes | 2, 3 | 2 x 350 | 15,000 | 5 | 9,800**** | 50 | 15,000 | 2,100 | 9,800 |
| 2 | *HR Hughes* | • | | | | | | | 270 | 56 | 3,420 | 12.5 | 20,000 | 12,000 | 880 | 8,000 | 10,000 | 1,000,000 | N/A | 6,600 | 1,200,000 | 6,600 | 11,600 | 20 | Yes | 2 x 60 | 180 | 15 | 2 x 18,000 | 60 | Yes | 1,200/1,000*** | Yes | Kongsberg/Simrad-SATLOC | Yes | Yes | Yes | Yes | 3, 4 | 2 x 350 | 15,000 | 7 | 12,500 | 60 | 15,000 | 2,100 | 12,500 |
| 3 | *StimFORCE I* | | | | • | | | | Platform Supply Vessel (MV Art Carlson) free deck space 40'x176' | | | | | | | | | 300,000 | | 6,600 | PSV | PSV | PSV | 40 | Yes | 2 x45 | 400 | 50 | 2 x 15,000 | 45 | Yes | PSV | Yes | PSV | Yes | Yes | Yes | Yes | 3, 4 | 2 x 300 | 15,000 | 6 | 8,700 | 45 | 15,000 | 2,100 | 9,300 |
| | *StimFORCE 2* | | | | • | | | | Platform Supply Vessel (PSV) free deck space 40'x176' | | | | | | | | | 300,000 | | 6,600 | PSV | PSV | PSV | 40 | Yes | 2 x45 | 400 | 50 | 2 x 15,000 | 45 | Yes | PSV | Yes | PSV | Yes | Yes | Yes | Yes | 3, 4 | 2 x 300 | 15,000 | 6 | 10,000 | 45 | 15,000 | 2,100 | 10,000 |
| | **BJ Services Stephanie Weiss, 11211 FM 2920, Tomball, TX 77375; phone (832) 559-1300; email: stephanie.weiss@bjservices.com** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | *M/V Blue Angel* | | | | | • | | | 275 | 61 | 9,600 | 14 | 60,000 | 29,000 | None | None | None | 500,000 | 57,000 | 1,200 | 2,100,000 | 4,000 | 3,500 | 10 | Yes | 120 | 200 | 50 | 32,000 | 50 | Yes | 4,200 | Yes | DP-2 DNV certified | Yes | Yes | Yes | Yes | 3, 4 | 380 | 15,000 | 9 | 12,000 | 60 | 15,000 | 8,400 | 12,000 |
| 5 | *M/V Blue Marlin* | | | | | | | | 280 | 60 | 7,200 | 14 | 60,000 | 29,000 | None | None | None | 500,000 | 120,000 | 1,200 | 1,100,000 | 4,800 | 3,000 | 10 | Yes | 120 | 200 | 50 | 32,000 | 50 | Yes | 4,400 | Yes | DP-2 ABS certified | Yes | Yes | Yes | Yes | 3,4 | 250,450 | 15,000 | 6 | 12,000 | 60 | 15,000 | 8,400 | 12,500 |
| 6 | *M/V Blue Ray* | • | | | | | | | 265 | 60 | 6,780 | 12 | 13,000 | 12,600 gal | 350 | 20,000 | 4,250 | 425,000 | N/A | 10,450 | 1,080,000 | 10,800 | 7,915 | 25 | Yes | 120 | 444 | 25 | 36,000 | 75 | Yes | 3,600 (5) | Yes | Bier DP-2 ABS certified | Yes | Yes | Yes | Yes | 3, 4 | 350 | 15,000 | 7 | 12,500 | 75 | 15,000 | 4,200 | 8,600 |
| 7 | *M/V Blue Shark* | | | | | • | | | 260 | 56 | 5,400 | 13 | 40,000 | 32,800 | None | None | None | 425,000 | None | 500 | 1,025,000 | 2,380 | 1,720 | 10 | Yes | 120 | 200 | 50 | 32,000 | 50 | Yes | 4,800 | Yes | DP-2 ABS certified | Yes | Yes | Yes | Yes | 3, 4 | 380 | 15,000 | 6 | 8,600 | 60 | 15,000 | 8,400 | 8,400 |
| 8 | *M/V Challenger* | • | | | | | | | 240 | 56 | 3,200 | 10.5 | 12,000 | 14,000 | 400 | 12,000 | 2,000 | 200,000 | | 4,200 | 1,032,000 | 4,200 | 8,913 | 15 | Yes | 60 | 400 | 8 | 17,000 | 45 | Yes | Yes *** (6) | Yes | DP-2 ABS certified | Yes | Yes | Yes | Yes | 3 | 300 | 15,000 | 5 | 8,400 | 45 | 15,000 | 2,100 | 10,000 |
| 9 | *M/V Discovery* | | | | | | | • | 240 | 56 | 3,200 | 10.5 | 40,000 | 14,000 | 400 | 12,000 | 2,000 | 200,000 | | 6,040 | 827,000 | 6,040 | 11,348 | 15 | Yes | 60 | 400 | 25 | 17,000 | 45 | Yes | Yes *** (6) | Yes | DP-2 ABS certified | Yes | Yes | Yes | Yes | 3, 4 | 400 | 15,000 | 5 | 10,000 | 45 | 15,000 | 2,520 | 5,200 |
| 10 | *M/V Vestfonn* | | | | | | | • | 270 | 60 | 6,480 | 12 | 180,000 | 3,150 | N/A | 22,000 | N/A | N/A | 6,650 | N/A | 1,205,000 | 10,875 | 7,143 | 60 | Note 2 | 60 | 238 | 60 | 22,000 | 60 | Yes | 3,200 | Yes | Simrad SDP21/DP2 | Note 1 | Yes | Yes | Yes | Note 3 | 600 | 15,000 | 8 | 13,400 | 60 | 15,000 | 2,730 | 13,400 |
| | **Halliburton Rene' LeBlanc, 10200 Bellaire, Houston, TX 77072; phone: (281) 575-4132; email: rene.leblanc@halliburton.com** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | *Falcon Tide* | | | | | | • | | 258 | 49 | 3,000 | 9 | 250,000** | 10,000 | None | N/A | N/A | 240,000 | N/A | 2,450 | None | 2,450 | 2,588 | N/A | Yes | 50 | N/A | 50 | 20,000 | 50 | Yes | 1,800 | Yes | Nautronics ATS11 402, XDPS-1 | Yes | Yes | Yes | Yes | 3 | 400 | 10,000 | 5 | 7,500 | 50 | 11,500 | 2,940 | 7,500 |
| | *Halliburton 301* | | | | | | • | | 210 | 42 | 2,450 | 11 | 129,000** | 4,400 | None | 12,000 | N/A | None | N/A | 1,570 | None | N/A | 2,625 | N/A | Yes | 70 | N/A | 70 | N/A | N/A | No | 650 | No | N/A | Yes | Yes | Yes | Yes | 3 | 320 | 10,000 | 8 | 4,800 | 70 | 11,200 | 2,100 | 4,800 |
| | *HOS Hawke* | | • | | | | | | 200 | 56 | 4,200 | 12 | 67,288** | 11,400 | None | 50,000 | N/A | None | 69,000 | None | None | 2,200 | 5,085 | N/A | N/A | 35 | N/A | 35 | N/A | 35 | Yes | 1200 | Yes | Simrad SDP01, DPS-1 | Yes | Yes | Yes | Yes | 3 | 80 | 15,000 | 4 | 6,750 | 35 | 15,000 | 2,940 | 6,750 |
| 12 | *HOS Saylor* | | • | | | | | | 243 | 54 | 7,845 | 12 | 31,000 | 16,720 | 1,628 | 30,000 | 11,087 | N/A | 16,720 | 1,628 | N/A | 1,628 | 1,770 | N/A | N/A | 40 | 50 | 40 | N/A | 40 | Yes | 770/770 | Yes | DPS-1 | Yes | Yes | Yes | Yes | 3 | 350 | 15,000 | 4 | 6750 | 40 | 15,000 | 3 ea 2500 | 6,750 |
| 13 | *Skandi Fjord* | | | • | | | | | 288 | 61 | 7,200 | 14 | 180,000 | 12,000 | 1,048 | N/A | N/A | 1,730,000 | 136,000 | 19,760 | 2,650 cu ft | 23,810 | 7,140 | 100 | Yes | 60 | 48 | 60 | 20,000 | 60 | Yes | 3,300 | Yes | Kongsberg 703, DP-AA | Yes | Yes | Yes | Yes | 2x4 | 400 | 15,000 | 6 | 10,400 | 100 | 15,000 | 5,040 | 10,400 |
| 14 | *Stim Star* | | | | • | | | | 274 | 56 | 3,420 | 14.2 | 60,000** | 12,100 | 620 | N/A | N/A | 668,000 | N/A | 4,850 | 8,075 cu ft | 4,850 | 4,850 | 75 | Yes | 50 | 200 | 30 | 20,000 | 50 | Yes | 1,200/1,000 | Yes | Simrad/Kongsberg SDP21, DPS-2 | Yes | Yes | Yes | Yes | 3, 4 | 450 | 15,000 | 7 | 10,150 | 75 | 15,000 | 7ea 2,500 | 10,150 |
| | *Stim Star II* | • | | | | | | | 240 | 56 | 3,420 | 14.2 | ***** | 8,000 | None | ****** | N/A | 668,000 | N/A | 6,040 | 8,075 cu ft | 5,465 | 10,486 | 75 | Yes | 50 | N/A | N/A | 20,000 | 50 | Yes | 1,000/400 | Yes | Bridgemate II, DPS-2 | Yes | Yes | Yes | Yes | 3, 4 | 400 | 15,000 | 6 | 17,500 | 64 | 15,000 | 7ea 2,500 | 17,500 |
| 15 | *Stim Star III* | • | | | | | | | 260 | 56 | 5,400 | 14.2 | ***** | 10,000 | None | ****** | N/A | 835,000 | N/A | 10,230 | 10,500 cu ft | 8,870 | 6,740 | 75 | Yes | 75 | N/A | N/A | 20,000 | 60 | Yes | 2-1,000/1-1,200 | Yes | Simrad/Konesberg SDP21, DPS-2 | Yes | Yes | Yes | Yes | 3, 4 | 400 | 15,000 | 8 | 21,500 | 64 | 15,000 | 7ea 3,100 | 21,500 |
| 16 | *Stim Star Borneo* | | | | | | | • | 200 | 66 | 2,000 | 7 | 8,400 | 7,437 | None | 1100 | N/A | 350,000 | None | 4,000 | None | 4,000 | 5,100 | 10 | Yes | 30 | 100 | 15 | 20,000 | 30 | Yes | 1,000 | No | L-3 Joy Stick Control | Yes | Yes | Yes | Yes | 3 | 350 | 15,000 | 8 | 8,250 | 25 | 15,000 | 3ea 1,260 | 8,250 |
| 17 | *War Admiral* | | | | • | | | | 220 | 44 | 4,000 | 12 | 20,000 | 8,000 | None | 25,000 | N/A | 210,000 | N/A | 2,200 | 8,000 cu ft | 2,200 | 4,000 | 10 | Yes | 50 | N/A | 20 | 20,000 | 50 | Yes | 680 | Yes | Robertson | Yes | Yes | Yes | Yes | 3 | 300 | 15,000 | 5 | 8,500 | 35 | 15,000 | 5,000 | 8,500 |
| | **Schlumberger James Metson, Sugar Land, TX 77478; phone: (281) 285 8629; email: metson1@sugar-land.oilfield.slb.com General Information: STIMINFO@SLB.COM** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | *Bigorange 18* | | | • | | | | | 243 | 59 | 5,000 | 12 | 240,000 | 10,000 | None | 24,000 | 1,150 | 1,200,000 | 14,800 | 5,500 | 15,400 | 5,500 | 5,500 | 60 | Yes | 70 | 5,500 | 60 | 60,000 | 70 | Yes | 7,100 | Yes | Kongsberg ADP 702 | Yes | Yes | Yes | Yes | 3 | 480 | 15,000 | 9 | 12,600 | 70 | 12,500 | | 12,600 |
| 19 | *Bigorange 25* | | | | | • | | | 217 | 44 | 3,600 | 10 | 120,000 | 11,000 | 380 | 10,000 | 3,600 | 50,000 | N/A | 1,200 | N/A | 1,200 | 1,200 | 8 | Yes | 80 | 150 | 70 | 18,000 | 25 | No | 750 | Yes | Robopos/Tautwire | Yes | Yes | Yes | Yes | 3 | 400 | 15,000 | 3 | 6,400 | 60 | 10,000 | | 6,400 |
| 20 | *DeepStim* | | | | • | | | | 260 | 56 | 3,420 | 12 | 8,400 | 8,250 | 870 | 4,000 | 2,000 | 200,000 | 0 | 4,800 | 12,200 | 4,800 | 4,800 | 70 | Yes | 70 | 4,800 | 30 | 18,000 | 50 | Yes | 1,550 | Yes | Konsberg/Simrad | Yes | Yes | Yes | Yes | 3 | 2 x 300 | 22,500 | 8 | 16,850 | 50 | 15,000 | 2,100 | 16,850 |
| 21 | *DeepStim II* | • | | | | | | | 270 | 56 | 3,420 | 12 | 8,400 | 8,250 | 860 | 3,050 | 2,000 | 200,000 | 0 | 6,600 | 14,700 | 6,600 | 6,600 | 70 | Yes | 70 | 6,600 | 30 | 18,000 | 50 | Yes | 2,200 | Yes | Konsberg/Simrad | Yes | Yes | Yes | Yes | 3 | 2 x 300 | 22,500 | 8 | 21,450 | 50 | 15,000 | 2,100 | 21,450 |
| 22 | *DeepStim III* | • | | | | | | | 239 | 44 | 3,200 | 12 | 12,600 | 8,250 | 810 | | 2,000 | 200,000 | | 4,140 | 6,400 | 4,140 | 4,140 | 35 | Yes | 35 | 4,140 | 25 | 18,000 | 25 | Yes | 2,200 | Yes | Konsberg/Simrad | Yes | Yes | Yes | Yes | 3 | 1 x 300 | 22,500 | 5 | 12,850 | 25 | 15,000 | 2,100 | 12,850 |
| 23 | *Galaxie* | | | • | | | | | 220 | 44 | 3,900 | 11 | 45,000 | 7,750 | 240 | 4,000 | 2,000 | 200,000 | 0 | 2,750 | 6,400 | 240 | 5,800 | 25 | Yes | 50 | 240 | 40 | 18,000 | 40 | Yes | 700 | Yes | Konsberg/Simrad | Yes | Yes | Yes | Yes | 4 | 1 x 300 | 10,000 | 5 | 8,500 | 40 | 15,000 | 3,360 | 8,500 |
| 24 | *Gulf Pearl* | | | | | • | | | 208 | 45 | 4200 | 10 | 60,000 | 15,000 | None | N/A | N/A | N/A | N/A | 2,619 | None | 2,619 | 2,619 | No | Yes | 70 | 3,571 | 70 | N/A | 70 | No | 1,100 | Yes | Knnsberg/DP1 | Yes | Yes | Yes | Yes | 4 | 2 x 300 | 10,000 | 4 | 7,800 | 80 | 10,000 | 4,200 | 7,800 |

**Total operating pump capability (frac pumps)**

3,000 hhp · 6,000 hhp · 9,000 hhp · 12,000 hhp · 15,000 hhp · 18,000 hhp · 21,000 hhp · 24,000 hhp · 27,000 hhp

**Notes:**
1) 2 off Drexel 3 in. line
2) 4,500 gal of LFC
3) 4 in./ 3 in./ 2.75 in.
4) DGPS/Satloc
5) Two-bow thrusters
1-bow fixed 1,200 hp
1-bow dropdown 1,200 hp
2-stern thrusters 600 hp
6) 1,000 hp tunnel and 1,200 hp dropdown

** Acid storage below deck
*** Navigational thrusters are of Azimuthal type
N/A Not applicable
**** Hp expandable to 11,000 hhp
!! Hp expandable to 16,500 hhp
! Hp expandable to 10,400 hhp