

| Item  | Material name  | UOM | Required quantity | Standard  |
|---|--|-----|-------------------|---|
| <b>3NB-1000F mud pump spare parts</b>                         |  |     |                   |   |
| 1   | Valve rod guide NB800G.05.28.00  | ea. | 10                | API Spec 7K All spare parts must be resistant to oil-based mud. |
| 2   | Valve rod guide (top) NB800G.05.12   | ea. | 10                |   |
| 3   | Valve guide NB800G.05.17.07  | ea. | 6                 |   |
| 4   | Valve assembly<br>NB800G.0000.0517.00                                      | ea. | 120               |   |
| 5   | Pressure gauge (M14x1,5) 0-1,6MPA<br>(0-230psi) Y-60Z                      | ea. | 6                 |   |
| 6   | Liner 170 NB800G.05.22<br>(NB107.05.10.06.00)                              | ea. | 75                |   |
| 7   | Liner 180 NB800G.05.22<br>(NB107.05.10.07.00)                              | ea. | 70                |   |
| 8   | Liner seal NB800G.05.04  | ea. | 90                |   |
| 9   | Piston seal ring NB800G.05.20  | ea. | 90                |   |
| 10  | Piston nut NB1000G.05.18.00  | ea. | 20                |   |
| 11  | Air inlet compensator<br>NB1000G.05.07.00                                  | ea. | 6                 |   |
| 12  | Shock-resistant pressure gauge;<br>0-25MPA Y-60                            | ea. | 4                 |   |
| 13  | Pony rod NB1000G.04.10   | ea. | 4                 |   |
| <b>3 NB-1600F, F-1600 and HHF-1600HL mud pump spare parts</b> |  |     |                   |   |
| 1   | Compensator with diaphragm and<br>stabilizer 3NB1600<br>GH3161-27.03.00(G) | set | 18                |   |
| 2   | 3NB-1600 Valve seal GH3161-05.11.05<br>(G)                                 | ea. | 200               |   |
| 3   | 3NB-1600 Liner d160<br>HTNB140.03.04.00                                    | ea. | 120               |   |
| 4   | 3NB-1600 Liner d170<br>HTNB140.03.05.00                                    | ea. | 180               |   |
| 5   | 3NB-1600 Liner D180<br>HTNB140.03.06.00                                    | ea. | 180               |   |
| 6   | 3NB-1600 Piston d160<br>GH3161-05.24.03.00(G)                              | ea. | 200               |   |
| 7   | 3NB-1600 Piston d170<br>GH3161-05.24.04.00(G)                              | ea. | 200               |   |
| 8   | 3NB-1600 Piston D180   | ea. | 200               |   |

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|    | GH3161-05.24.05.00(G)  |     |     |
| 9  | Valve assembly (3NB-1600)<br>GH3161-05.11.00(G)                  | ea. | 400 |
| 10 | Pressure gauge diaphragm (for<br>3NB-1600F)                      | ea. | 20  |
| 11 | Liner seal ring GH3161-05.14 (G)<br>GH3161-05.14 (G)             | ea. | 200 |
| 12 | Safety valve 3NB-1600<br>JA-3.3NB-1600GH3161-28.00(G)            | set | 8   |
| 13 | Pin for safety valve 3NB-1600<br>GH3161-28.11(G)                 | ea. | 90  |
| 14 | Cylinder cap flange GH 3161-05.16<br>GH3161-05.02 ; GH3161-05.03 | ea. | 9   |
| 15 | Rod clamp (3NB-1600)<br>GH3161-05.22.00                          | ea. | 7   |
| 16 | Pony rod stuffing box sealing set<br>(GH3161-04.05)              | set | 10  |
| 17 | Valve seal (for drill pump F-1600)<br>GH3161-05.11.05 (G)        | ea. | 60  |
| 18 | Valve assembly (for drill pump F-1600)<br>GH3161-05.11.00(G)     | set | 180 |
| 19 | Compensator diaphragm (F-1600)<br>GH3161-27.03.00(G)             | ea. | 8   |
| 20 | Needle valve for compensator<br>(F-1600) JZR3-L8                 | ea. | 8   |
| 21 | Liner for drill pump D160 F-1600<br>HTNB140.03.04.00             | ea. | 80  |
| 22 | Liner for drill pump D170 F-1600<br>HTNB140.03.05.00             | ea. | 120 |
| 23 | Liner seal (for drill pump F-1600)<br>GH3161-05.14 (G)           | ea. | 150 |
| 24 | Piston D180 (F-1600)<br>GH3161-05.24.05.00(G)                    | ea. | 100 |
| 25 | Diaphragm (stabiliz) for compensator<br>XL-7.5K20(CH) HHF-1600HL | set | 12  |
| 26 | Valve assembly (HHF-1600HL)<br>NB2200G.05.31A.00                 | ea. | 250 |
| 27 | Needle valve for compensator<br>(HHF-1600HL) JZR3-L8             | ea. | 6   |
| 28 | Liner 6 1/2" (HHF-1600HL)  | set | 90  |

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|    | HTNB140.04.01.00                                   |     |     |
| 29 | Liner 6 1/4" (HHF-1600HL)<br>HTNB140.04.04.00      | ea. | 90  |
| 30 | Liner 6 3/4" (HHF-1600HL)<br>HTNB140.04.06.00      | ea. | 90  |
| 31 | Liner 6" HTNB 140.04.03.00                         | ea. | 60  |
| 32 | Liner 7 1/2" (HHF-1600HL)<br>HTNB140.04.09.00      | ea. | 60  |
| 33 | Liner 7" (HHF-1600HL)<br>HTNB140.04.07.00          | ea. | 90  |
| 34 | Liner seal (HHF-1600HL)<br>NB1600M.01.07H          | ea. | 300 |
| 35 | Piston 6 1/2" HNBR (HHF-1600HL)                    | ea. | 120 |
| 36 | Piston 6 1/4" HNBR (HHF-1600HL)                    | ea. | 80  |
| 37 | Piston 6 3/4" HNBR (HHF-1600HL)                    | ea. | 120 |
| 38 | Piston 6" HNBR (HHF-1600HL)                        | ea. | 90  |
| 39 | Piston 7 1/2" NBR (HHF-1600HL)                     | ea. | 90  |
| 40 | Piston 7" NBR NB 1600M01.09.00H                    | ea. | 90  |
| 41 | Piston seal (HHF-1600HL)<br>GH3161-05.31           | ea. | 20  |
| 42 | Needle for safety valve HHF1600HL<br>NB2200G.27.08 | ea. | 90  |
| 43 | Safety valve HHF-1600HL<br>NB1600M.10.00H          | ea. | 10  |
| 44 | Rod clamp assembly (HHF-1600HL)<br>GH3161-05.22.00 | ea. | 6   |