

# SERVICE MANUAL

NSP

10N2/12N2/12N/14N2/

14N2I/16N2/16N2I/16N2S

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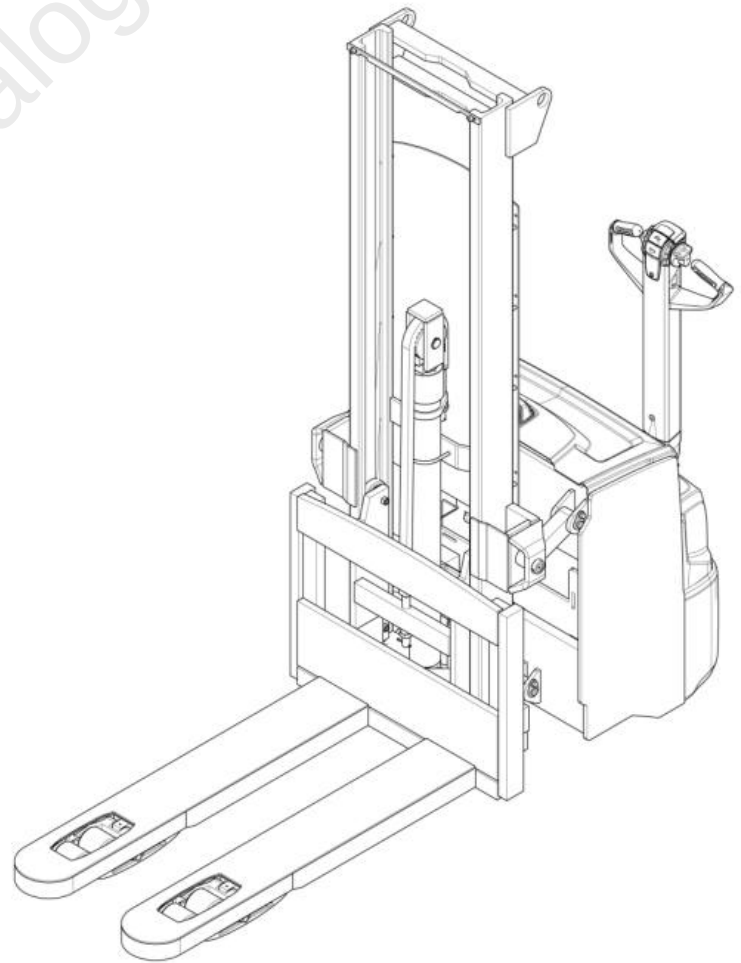
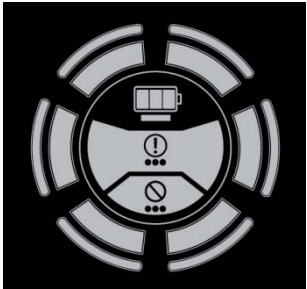


Table 2. Level of battery charge indications

| LED DISPLAY                                                                         | DESCRIPTION                                                                                                                          |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|    | Green light in all six dial segments = Battery charge level at 70 - 100%                                                             |
|    | Yellow light in the bottom four dial segments = Battery charge level at 40 - 70%                                                     |
|  | Red light in the bottom two dial segments = Battery charge level at 20 - 40%                                                         |
|  | Slowly flashing red light in the bottom two dial segments = Battery charge level at 0 - 20% (battery is empty, recharge immediately) |

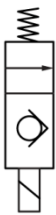
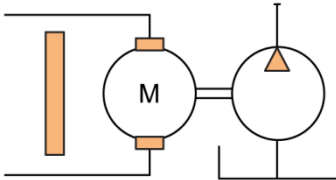
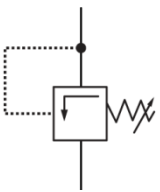
In case of a warning or error, press and hold down the brake release button to read the warning or error code. The LED display uses a flashing light sequence to indicate the error code as explained in Table 3.

| PARAMETER                                          | DESCRIPTION                                                                                                                                                                                                                                                                       |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Max speed FWD PIN 3<br>MAX SP. FW PIN3             | Maximum speed forward with PIN code 3.                                                                                                                                                                                                                                            |
| Max speed FWD PIN1<br>MAX SP. FW PIN1              | Maximum speed forward with PIN code 1.                                                                                                                                                                                                                                            |
| Max speed FWD PIN2<br>MAX SP. FW PIN2              | Maximum speed forward with PIN code 2.                                                                                                                                                                                                                                            |
| Max speed REV PIN 1<br>MAX SP. BK PIN1             | Maximum speed backwards with PIN code 1.                                                                                                                                                                                                                                          |
| Max speed REV PIN 2<br>MAX SP. BK PIN2             | Maximum speed backwards with PIN code 2.                                                                                                                                                                                                                                          |
| Max speed REV PIN 3<br>MAX SP. BK PIN3             | Maximum speed backwards with PIN code 3.                                                                                                                                                                                                                                          |
| Max speed reverse<br>MAX SPEED BACK                | <p>This parameter controls the maximum speed backward in the standard drive mode.<br/>Value range:</p> <ul style="list-style-type: none"> <li>• 10%: Slowest</li> <li>• 100%: Fastest</li> </ul> <p><b>NOTE:</b> For safety reasons, do not exceed the parameter table value!</p> |
| Proportional valve closing ramp<br>EVP CLOSE DELAY | <p>This parameter controls the proportional valve closing delay ramp.<br/>Value range:</p> <ul style="list-style-type: none"> <li>• 0.1: Fastest</li> <li>• 12.75: Slowest</li> </ul>                                                                                             |
| Proportional valve opening ramp<br>EVP OPEN DELAY  | <p>This parameter controls the proportional valve open delay ramp.<br/>Value range:</p> <ul style="list-style-type: none"> <li>• 0.1: Fastest</li> <li>• 12.75: Slowest</li> </ul>                                                                                                |
| Pump acceleration ramp<br>PU. ACCELER. DEL         | <p>This parameter controls the acceleration ramp for the pump motor.<br/>Value range:</p> <ul style="list-style-type: none"> <li>• 0.1: Fastest</li> <li>• 25.5: Slowest</li> </ul>                                                                                               |
| Pump deceleration ramp<br>PU. DECELER. DEL         | <p>This parameter controls the deceleration ramp for the pump motor.<br/>Value range:</p> <ul style="list-style-type: none"> <li>• 0.1: Fastest</li> <li>• 25.5: Slowest</li> </ul>                                                                                               |

### 14.3 Maintenance check list

Legend: C = Check, R = Repair, Clean or Change, G = Grease

|                                                                                      | BEFORE<br>DAILY USE<br>(USER) | MONTHLY<br>(OWNER) | 600 h OR<br>ONCE A<br>YEAR<br>(SERVICE) | 1,200 h OR<br>EVERY<br>SECOND<br>YEAR<br>(SERVICE) |
|--------------------------------------------------------------------------------------|-------------------------------|--------------------|-----------------------------------------|----------------------------------------------------|
| <b>Drive unit</b>                                                                    |                               |                    |                                         |                                                    |
| Transmission leakage check                                                           | C                             | C                  | C                                       | C                                                  |
| Steering bearing                                                                     |                               |                    | C                                       | C                                                  |
| Fastening of the gearbox                                                             |                               |                    | C                                       | C                                                  |
| <b>Hydraulics</b>                                                                    |                               |                    |                                         |                                                    |
| Leakage checking                                                                     | C                             | C                  | C                                       | C                                                  |
| Cleaning the oil filter                                                              |                               |                    |                                         | R                                                  |
| Hydraulic oil change                                                                 |                               |                    |                                         | R                                                  |
| Oil level                                                                            |                               | C                  | C                                       | C                                                  |
| Hose and cylinder                                                                    |                               | C                  | C                                       | C                                                  |
| Operation of the hydraulics                                                          | C                             | C                  | C                                       | C                                                  |
| Pressure relief valves                                                               |                               |                    | C                                       | C                                                  |
| <b>Mast</b>                                                                          |                               |                    |                                         |                                                    |
| Mounting of the mast                                                                 |                               |                    | C                                       | C                                                  |
| Visual inspection of the mast rollers' and contact surface's wear level              |                               |                    | C                                       | C                                                  |
| Chain setting, adjustment if needed.                                                 | C                             | C                  | C                                       | C                                                  |
| Mounting, wear and damage of the forks and the load handling device                  | C                             | C                  | C                                       | C                                                  |
| Tightness of the hydraulic connections, hoses and pipes, possible leaks and damages. |                               | C                  | C                                       | C                                                  |
| Tightness of the cylinders and piston rods, possible leaks and damages               |                               |                    | C                                       | C                                                  |
| Lifting and lowering speed                                                           |                               |                    | C                                       | C                                                  |
| Chain lubrication, clean and lubricate if needed                                     |                               |                    | C                                       | C                                                  |
| Functionality of the lift sensors in the mast, possible damages                      |                               |                    | C                                       | C                                                  |

| SYMBOL                                                                              | DESCRIPTION                      |
|-------------------------------------------------------------------------------------|----------------------------------|
|    | Solenoid valve                   |
|    | Pump motor and hydraulic pump    |
|    | Adjustable pressure relief valve |
|   | Hydraulic oil flow choker        |
|  | Hydraulic oil tank filling plug  |

## Full Version Available

### Caterpillar NSP10N2 Stacker Service and Operator Manual (616838)

Caterpillar NSP10N2 Stacker service manual, covers mast, hydraulics, drive unit, wiring, and diagnostics. Searchable PDF download.

**[VIEW THE FULL MANUAL](https://machinecatalogic.com/caterpillar-nsp10n2-stacker-service-and-operator-manual-616838/)**

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