



Australian Government
Department of Industry,
Innovation and Science

National
Measurement
Institute

NITP 6.8

National Instrument Test Procedures for Wheeled Loaders

February 2018

www.measurement.gov.au

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NITP 6.8

First edition: February 2018

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Preface

The National Measurement Institute's Chief Metrologist has determined that National Instrument Test Procedure (NITP) 6.8 contains the test procedures for the verification of wheeled loaders with Certificates of Approval based on *NMI R 51 Automatic Catch Weighing Instruments*. Refer to NITP 6.1 to 6.4 for the test procedure for wheeled loaders with Certificates of Approval based on *NMI R 76 Non-automatic Weighing Instruments*.

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Explanation of Terms

Crowding

Positioning of the load receptor rotated back, so that the load will fall into the centre of the load receptor.

Load Receptor ('Bucket') Location Sensor / Crowd Sensor

A device that detects when the load receptor is in the correct (crowded) position (i.e. rotated 'crowded' back, so that the load will fall into the centre of the load receptor). The system will inhibit weighing if the load receptor is not in this location.

Fork Lift

Instruments of this type have load receptors incorporated into two separate weigh arms which are typically connected to a lifting mechanism attached to the vehicle.

Load Receiver Plate

Instruments of this type have load receptors in the form of a load receiver plate typically mounted as part of a bin lifting mechanism.

Loader Bucket

Instruments of this type are fitted with a bucket load receptor.

Test Objects

Loose or bulk material (e.g. sand, suitable concrete blocks or metal) which will maintain a stable weight value for the duration of testing.

For further explanations of terms see [General Information for Test Procedures](#).

Abbreviations

e	verification scale interval
L	applied load
T	test load
I	indication
Max	maximum capacity
Min	minimum capacity
MPE	maximum permissible error

1. Scope

NITP 6.8 applies to wheeled loaders with Certificates of Approval based on *NMI R 51 Automatic Catch Weighing Instruments*. Refer to NMI R 51 for all metrological and technical requirements. For wheeled loaders with Certificates of Approval based on *NMI R 76 Non-automatic Weighing Instruments* refer to NITP 6.1 to 6.4 for test procedures.

NITP 6.8 describes the test procedures for the verification and in-service inspection of wheeled loaders to assess whether they measure within the maximum permissible errors (MPEs) and comply with their Certificate(s) of Approval.

The safety and environmental hazards associated with carrying out the test procedure will depend on the location and selected materials. As the precautionary measures included in this document may not be sufficient for every situation, an on-site risk assessment and control plan should be carried out before commencing work.

All instruments must also comply with the *National Measurement Act 1960* (Cth), the *National Measurement Regulations 1999* (Cth) and the *National Trade Measurement Regulations 2009* (Cth).

2. Equipment

Testing the performance of the instrument will require reference to the following documents:

1. Certificate(s) of Approval
2. test report (see Appendix A).

Testing the performance of the instrument will require access to the following equipment:

1. Appropriate reference standards of measurement with a current Regulation 13 certificate. The maximum permissible uncertainties and variations associated with these standards are described in Schedule 9 of the *National Measurement Regulations 1999* (Cth).
2. Depending on the manner in which the instrument is being tested, the following additional equipment will be required:
 - if the performance of the instrument is tested using calibrated test objects, then:
 - a suitable control instrument is required for weighing the test objects (see clause 4)
 - suitable test material is required to create test objects (see clause 4.1).
 - if the performance of the instrument is tested using a control instrument, then:
 - a suitable control instrument is required for weighing the instrument under test and/or the payloads that will be used in the tests (see clause 4).
3. Where applicable, a forklift or other suitable equipment to move large weights and/or test objects.
4. A stockpile of suitable material is required for the zero setting test when the wheeled loader is fitted with a bucket loader and is normally loaded by driving it into a stockpile (see clause 6.1).

Note:

If the performance of the instrument is tested using standard weights, then:

- the sum of the maximum permissible uncertainties and variations of the standard weights must not be greater than one-third of the MPE for the load applied to the instrument.

If the performance of the instrument is tested using calibrated test objects, then:

- the sum of the maximum permissible uncertainties and variations of the standard weights used to test the control instrument must not be greater than one-third of the MPE for the load applied to the control instrument; and
- the measurement uncertainty of the test objects must not be greater than one-third of the MPE for the applied load to the wheeled loader being tested.

If the performance of the instrument is tested using a control instrument, then:

- the sum of the maximum permissible uncertainties and variations of the standard weights used to test the control instrument must not be greater than one-third of the MPE for the load applied to the control instrument; and
- the measurement uncertainty of the test load must not be greater than one-third of the MPE for the applied load to the wheeled loader being tested.

3. Visual Inspection

Visually inspect the instrument and where applicable record details of the required data and characteristics of the instrument on the test report.

3.1 Required Data

The following data will be required to complete the test report:

1. test report number
2. date of test
3. verifier's name
4. type of test: verification or in-service inspection (ensure that the verification mark is in place for in-service inspection and reverification)
5. name of owner/user
6. address of owner/user
7. name of contact person on premises
8. address of instrument location, if applicable
9. description of instrument
10. manufacturer(s)
11. model
12. instrument serial number
13. Certificate(s) of Approval number(s)
14. metrological characteristics, including: Max, Min, and verification scale interval (e)

Note: The value of Min is 10 e, unless specified otherwise in the Certificate of Approval.
15. vehicle make/type
16. vehicle/chassis serial number.

3.2 Characteristics of the Instrument

Where applicable, an instrument and its use shall comply with the following:

1. The instrument complies with its Certificate(s) of Approval.
2. The instrument is used in an appropriate manner.
3. All mandatory descriptive markings are clearly and permanently marked on the data plate.
4. The data plate is fixed on the instrument.
5. The instrument is complete.
6. The instrument is reasonably clean.
7. The instrument is operational.
8. There are no apparent obstructions affecting the operation of the instrument.
9. Any additional indicating devices and point of sale systems comply with the applicable general supplementary certificates S1/0B or S1/0/A or relevant Certificate(s) of Approval.

4. Control Instrument

A control instrument is required when test objects or payloads are used in place of standard weights or when used to weigh the instrument under test in its loaded and unloaded state.

Control instruments are used to determine the weight of the test objects used prior to or during testing.

A control instrument shall:

- be a non-automatic weighing instrument
- have a suitable accuracy:
 - in order to determine the weight of a test object – the error of indication of the control instrument shall be no more than one-sixth of the MPE of the wheeled loader for the corresponding mass
 - in order to determine the weight of the instrument under test – the error of indication of the control instrument shall be no more than one-third of the MPE of the wheeled loader for the corresponding weight
- have a maximum capacity equal to or greater than the weight of the heaviest test object
- be capable of having:
 - standard weights deposited on the load receptor; or
 - the instrument under test manoeuvred onto the load receptor.

The control instrument shall be tested in accordance with *NITP 6.1 to 6.4 National Instrument Test Procedures for Non-automatic Weighing Instruments* from Min up to 110% maximum weight of the heaviest test object or payload. A completed test report for the control instrument shall be appended to the test report for the wheeled loader.

The control instrument should be tested within 24 hours prior to testing the wheeled loader. Alternatively, use of the control instrument within 28 days of testing is acceptable if the instrument also passes the tests for repeatability and eccentricity within 24 hours prior to use as a control instrument.

If the control instrument has zero tracking, the zero tracking function is to be disabled.

4.1 Test Objects

Test objects may consist of any loose or bulk material such as: sand, suitable concrete blocks, or metal.

The test objects shall be produced in such a way that the following loads can be made:

- Min
- 10 e for over range blanking
- 1/3 Max
- 1/2 Max
- Max
- two additional intermediate test objects between Min and Max.

Note: If practical, these loads shall include loads equivalent to MPE change points (i.e. 50 e and 200 e).

The weight of each test object shall be determined using the following procedure:

1. Determine the number of test objects required. Applied loads shall be selected to be as close as possible to whole multiples of e , or whole multiples of $e + 0.5 e$ in accordance with Table 2, where e is the wheeled loader's verification scale interval.
2. Test the control instrument in accordance with *NITP 6.1 to 6.4 National Instrument Test Procedures for Non-automatic Weighing Instruments* from Min up to 110% of the heaviest test object or payload to be used.
3. Zero the control instrument.
4. Place the test object on the control instrument and if required add or subtract material from the test object for adjustment purposes.
5. After any adjustment record the weight indicated on the control instrument.
6. Repeat steps 3 to 4 for all other test objects.

The weight of the test objects should be determined within 24 hours prior to testing the wheeled loader. This timeframe can be extended if the integrity of the test objects is maintained.

5. Standard Procedures

5.1 Maximum Permissible Error

The maximum permissible errors for verification and in-service inspection are shown in Table 1.

Note: Table 1 shows two separate MPE values: with and without $0.5 e$ included to account for digital rounding error. The *National Trade Measurement Regulations 2009* (Cth) specify that $0.5 e$ shall be subtracted from the MPEs where the test procedure eliminates the effect of digital rounding. These test procedures eliminate the effect of digital rounding because the test loads are designed to be close to whole or half multiples of e and so the pass criteria in Table 2 is drafted using MPE with $0.5 e$ subtracted.

To determine whether or not the indication is within the MPE for a particular load, the following procedure is conducted:

1. Determine the MPE for the test load using Table 1.
2. Determine the applied load using Table 2 and place onto the load receptor.
3. If the applied load and the indication are the same the indication is within the MPE - this is a **PASS**.
4. If the applied load and the indication are not the same, then use Table 2 to determine the pass criteria. When the criteria are satisfied the indication is within MPE - this is a **PASS**.

Table 1. MPEs for verification or in-service inspection for loads (m), expressed in verification scale intervals (e)

Load (m) expressed in verification scale intervals (e)	MPE (with $0.5 e$ included for digital rounding error)	MPE (without $0.5 e$ included for digital rounding error)
$0 < m \leq 50$	$\pm 1.5 e$	$\pm 1.0 e$
$50 < m \leq 200$	$\pm 2.0 e$	$\pm 1.5 e$
$200 < m \leq 1\ 000$	$\pm 2.5 e$	$\pm 2.0 e$

Table 2. Applied loads and pass criteria for MPEs where the effect of digital rounding is eliminated, expressed in verification scale intervals (e)

MPE	Applied load (L) (where the test load T is a whole multiple of e)	Pass criteria: PASS if indication, I, is
$\pm 1.0 e$	$T + 0.5 e$	T or (T+ e)
$\pm 1.5 e$	T	(T- e), T or (T+ e)
$\pm 2.0 e$	$T + 0.5 e$	(T- e), T, (T+ e) or (T+ 2 e)

5.2 Loading Cycle

Repeated weighing of a load is referred to as a loading cycle. For some instruments the loading cycle may be comprised of two parts, the loaded weighing on the way up and the unloaded weighing on the way down. The vehicle must remain stationary during the lifting and loading cycle.

A standard loading cycle should be followed for this test procedure.

1. Set the instrument to zero.
2. Place the test load on the load receptor.

Note: Unless an alternative position is indicated in the test procedure, the test objects or weights are to be placed on the load receptor with the centre of test objects or weights close to the centre of the load receptor.

Note: If a loader bucket and standard weights are used, the load receptor may be lifted and rotated back into the crowded back position prior to loading the standard weights where facilities exist to allow for this.

3. Lift the load and obtain an indication.

Note: The lift should be through the weighing range of the instrument, which may be the full lifting travel.

Note: If a bin or similar receptacle is used to hold the standard weights or test objects while the instrument is being tested, the bin weight should be determined as part of the test load.

4. Record the indication on the test report.
5. Lower the load receptor and repeat steps 2 to 4 four more times.

Note: For the tilting test in clause 6.6, only repeat steps 2 to 4 twice more.

6. Test Procedures

The following series of test procedures determine if the performance of the instrument meets verification requirements.

Each test procedure is explained as a discrete test. However tests can be combined to expedite the testing procedure. A suggested sequence for testing is shown in clause 7.

The instrument shall be set to zero at the start of each test sequence, unless impractical.

If an instrument is going to be used in a different geographical location, correct the gravity setting for the intended location. The effects of gravity can be up to 0.3% depending on the variation in latitude and altitude between the location of calibration and the location of use. Refer to the manufacturer's instruction manual.

Where instruments are intended to be used with alternative load receptors, the verification procedure shall be repeated with each load receptor.

6.1 Zero Setting

This procedure ensures that the instrument has zeroed to within $\pm 0.25 e$. This test is to be carried out using standard weights.

1. Set the instrument to zero. Always follow the manufacturer's instructions when zeroing the instrument.
2. If the instrument has zero-tracking, apply standard weights equal to a whole number of verification scale intervals which exceed the zero tracking range (suggest 10 e). Record the load value used on the test report.
3. Apply standard weights equal to 0.25 e to the load receptor and complete a loading cycle (see clause 5.2) at the normal lifting speed. In order to **PASS** the following must be satisfied:
 - at least three of the five indications must remain unchanged from the load recorded in step 2; and
 - no indication can be more than 1 e from the load determined in step 2.
4. Apply an additional 0.5 e to the load receptor and complete a loading cycle (see clause 5.2) at the normal lifting speed. In order to **PASS** at this load the following must be satisfied:
 - at least three of the five indications must be +1 e from the load determined in step 2; and
 - no indication shall be more than +2 e or less than 0 e from the load determined in step 2.
5. Record the indications.
6. Determine if the instrument is normally loaded by driving it into a stockpile.
 - If yes, continue onto step 7. If no, record on the test report N/A for this test.
7. Ensure that the load receptor is free from any foreign matter and zero the instrument.
8. With the bucket lowered in the normal loading position, drive into the face of the stockpile.
9. Fill the load receptor by turning, lifting and crowding the load receptor.
10. Empty the load receptor and remove any remaining material.
11. Without re-zeroing, repeat steps 2 to 5.
12. Record the results in the test report.
13. Determine whether the instrument has **PASSED** or **FAILED**.

6.2 Eccentricity

This test procedure is used to establish the weighing performance of the instrument with loads in different positions on the load receptor.

1. Set the instrument to zero.
2. Place a load of 1/3 Max within the **left** half of the load receptor and complete a loading cycle (see clause 5.2) at the normal lifting speed.
3. Record the indications and determine if the indications are within MPE (see clause 5.1).
4. Repeat steps 1 to 3 with the load within the following positions:
 - a) **right** half of the load receptor
 - b) **front** half of the load receptor
 - c) **back** half of the load receptor.

Note: If the instrument is not designed to have the weight within the front and back of the load receptor without falling to the bottom of the bucket, then only perform the test with the load within the left and right.

Note: If a bin is used to hold the standard weights or test objects while the instrument is being tested consideration should be given to how the bin is loaded when conducting this test to account for the possibility of off-centre loading.

5. Determine whether the instrument has **PASSED** or **FAILED**.

6.3 Weighing Performance

This test procedure is used to establish the weighing performance of the instrument at various lifting speeds and with different loads.

6.3.1 Different Lifting Speeds

1. Set the instrument to zero.
2. Place a load of 1/2 Max on the load receptor and carry out a loading cycle (see clause 5.2) at the following lifting speeds:
 - a) Minimum
 - b) Maximum
 - c) Normal operation (only performed if different from the maximum lifting speed).

Note: Record the lifting speeds on the test report and ensure the lifting speed is kept constant during step 3 of the loading cycle.

3. Record the indications and determine if they are within MPE (see clause 5.1).
4. Determine whether the instrument has **PASSED** or **FAILED**.

6.3.2 Different Loads

1. Set the instrument to zero.
2. Complete a loading cycle (see clause 5.2) at the normal lifting speed with the following loads:
 - a) Min
 - b) 1/2 Max
 - c) Max
 - d) two additional intermediate loads between Min and Max. If practical these loads shall include the MPE change points (i.e. 50 e and 200 e).
3. Record the indications and determine if they are within MPE (see clause 5.1).
4. Determine whether the instrument has **PASSED** or **FAILED**.

6.4 Limits of Indication (Over-range Blanking)

This test is used to establish whether over-range blanking is set correctly. There should be no indication above Max + 9 e.

1. Apply a test load of Max + 10 e.

Note: The applied load should reflect an indication of Max + 10 e to account for any weighing errors.

2. Perform a loading cycle with no repetitions.
3. If over-range blanking occurs, this is a **PASS** - go to step 5.

Note: Over-range blanking occurs when the indication is blank or causes an error signal.

4. If over-range blanking does not occur and the indication is Max + 10 e or greater, this is a **FAIL** - go to step 5.
5. Record the result on the test report.

6.5 Load Receptor ('Bucket') Location Sensor

This test procedure is only required if the instrument under test is a loader bucket.

This test procedure is used to establish the performance of the instrument with the load receptor uncrowded and to ensure that weighing is inhibited when the out of crowd limit is exceeded.

1. Place a load of 1/2 Max on the load receptor and rotate the load receptor to a position just outside the out-of-crowd limit.
2. Lift the load and ensure the weighing is inhibited.
3. Crowd the bucket so that the out of crowd sensor is **not** activated and weighing is permitted.
4. Complete a loading cycle at normal lifting speed.
5. Record the indication and determine if the indication is within MPE (see clause 5.1).
6. Determine whether the instrument has **PASSED** or **FAILED**.

6.6 Tilting (Out of Level)

This test procedure is used to establish that the out-of-level interlocks (which inhibit operation when the instrument is tilted excessively) are operational, and set to a suitable value.

To obtain the tilting, it is recommended to use a: wheel lift system; hill; stockpile of material; or stabiliser jacks.

Note: There are significant and specific safety concerns with lifting of loads with the vehicle tilted – sideways in particular. **DO NOT EXCEED SAFE CONDITIONS.**

1. Drive the vehicle onto level ground and zero the instrument.
2. Apply a load of 1/2 Max to the load receptor and complete a loading cycle (see clause 5.2) at the normal lifting speed.

Note: Only 1 loading cycle is required (see clause 5.2 step 5).

3. Test the out-of-level interlock by moving the vehicle to a slope with the **front** raised and tilted to the **right**, just past the out-of-level limit and complete a lift. Ensure the sensor activates and inhibits a weighing.
4. Move the vehicle to a slightly less severe slope where the out-of-level limit is not exceeded and complete a loading cycle.
5. Record the indications.
6. Determine if the indications are within MPE (see clause 5.1).
7. Complete a loading cycle in each of the following positions by repeating steps 3 to 6:
 - a) **front** raised and tilted to the **left**
 - b) **back** raised and tilted to the **right**
 - c) **back** raised and tilted to the **left**.
8. Determine whether the instrument has **PASSED** or **FAILED**.

6.7 Hydraulic System Articulation

This test procedure is used to establish the weighing performance of the instrument is not affected when the vehicle is articulated. This test only applies to hydraulically articulated vehicles which share hydraulic systems for lifting and articulation.

1. Set the instrument to zero.
2. Place a load of 1/2 Max on the load receptor.
3. Slew the vehicle fully to the right.
4. Carry out a loading cycle (see clause 5.2).
5. Record the indications and determine if they are within MPE (see clause 5.1).
6. Slew the vehicle fully to the left and repeat steps 4 and 5.
7. Determine whether the instrument has **PASSED** or **FAILED**.

6.8 Transaction Record

This test determines whether the instrument can calculate and print the transaction record correctly.

1. Place a load of 1/2 Max onto the load receptor and complete a loading cycle (see clause 5.2) at the normal lifting speed. Record the indications.
2. Place a load of Min onto the load receptor in addition to 1/2 Max, and complete a loading cycle (see clause 5.2) at the normal lifting speed. Record the indications.
3. Add the indications and print the total.
4. Ensure the:
 - a) individual indications agree with the display
 - b) addition occurred correctly
 - c) printing and number of weighings indicated agree with the display.
5. Determine whether the instrument has **PASSED** or **FAILED**.

7. Suggested Sequence for Testing

Conduct an onsite risk assessment and develop a control plan before commencing work. Ensure that safe conditions for all tests are not exceeded.

1. Check the Certificate(s) of Approval for supplementary tests and any additional tests required. Make provision for including these tests in the testing sequence.
2. Visually inspect the instrument and make a note of its metrological characteristics.
3. The instrument and associated equipment requires a warm up period in which the hydraulic system is exercised (i.e. by repetitively lifting the empty load receptor) to ensure that the hydraulic fluid is at operational temperature.
4. Conduct a zero setting test (clause 6.1).
5. Conduct an eccentricity test (clause 6.2).
6. Conduct a weighing performance test (clause 6.3). Include a test for the limits of indication (clause 6.4), crowd sensor (clause 6.5) and transaction record (clause 6.8).
7. Conduct a tilting test (clause 6.6) while implementing all necessary safety precautions.
8. If applicable conduct a hydraulic system articulation test (clause 6.7).
9. Determine whether the instrument has **PASSED** or **FAILED**.
10. Complete the test report.
11. Carry out anything else you need to do to complete the procedure. See *General Information for Test Procedures* and the Certificate of Approval for more information. This may include:
 - a) obliterating verification mark from the instrument
 - b) applying a verification mark
 - c) applying a seal.

Appendix A: Test Report

The following test report includes the minimum data that must be recorded.

If the Certificate of Approval requires additional tests, attach pages that record the results of these tests.

Number each page of the test report in the style shown at the top of the page.

Append a test report for the control instrument, if used.

Test Report for Wheeled Loader Weighing Instruments (NITP 6.8)

Test report number Date of test

Type of test (tick one): Verification In-service inspection

For in-service inspection/reverification record the verification mark:

Name of owner/user

Address of owner/user.....

Name of contact person on premises.....

Address of instrument location, if applicable.....

Description of instrument.....

Manufacturer(s) Model

Instrument serial number..... Certificate(s) of approval number.....

Max Min.....

Verification scale interval (e)

Vehicle Make/Type

Vehicle/chassis serial number

Characteristics of the Instrument (clause 3.2)	Indicate Yes/No or N/A
Does the instrument comply with its Certificate(s) of Approval?	
Is the instrument being used in an appropriate manner?	
Are all mandatory descriptive markings clearly and permanently marked on the data plate?	
Is the data plate fixed on the instrument?	
Is the instrument complete?	
Is the instrument clean?	
Is the instrument operational?	
Are there any apparent obstructions to the operation of the instrument?	
For additional indicating devices: do they comply with the applicable general supplementary certificates S1/0B or S1/0/A (or S1/0 or S2/0)?	

Description of reference standards used:.....

Number of load receptors (a separate test report is required for each):

Number of lifts completed for warm-up:.....

Test Results for Wheeled Loader Weighing Instruments (NITP 6.8)

Test	Instrument Zeroed?	Test Load (T)	Applied Load (L)	Indication					Result		
				Lift 1	Lift 2	Lift 3	Lift 4	Lift 5	P	F	N/A
Zero Setting (Clause 6.1)											
Accuracy of zero-setting	<input type="checkbox"/>	0.25e							<input type="checkbox"/>	<input type="checkbox"/>	
		0.75e							<input type="checkbox"/>	<input type="checkbox"/>	
Accuracy of zero-setting after bucket filled and emptied from stockpile	<input type="checkbox"/>	0.25e							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	0.75e							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eccentricity (Clause 6.2)											
Left half of load receptor	<input type="checkbox"/>	1/3 Max							<input type="checkbox"/>	<input type="checkbox"/>	
Right half of load receptor	<input type="checkbox"/>	1/3 Max							<input type="checkbox"/>	<input type="checkbox"/>	
Front of load receptor	<input type="checkbox"/>	1/3 Max							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Back of load receptor	<input type="checkbox"/>	1/3 Max							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weighing Performance (Clause 6.3)											
At different speeds (Clause 6.3.1)											
Lifting speed	rpm										
Maximum		<input type="checkbox"/>	1/2 Max						<input type="checkbox"/>	<input type="checkbox"/>	
Minimum		<input type="checkbox"/>	1/2 Max						<input type="checkbox"/>	<input type="checkbox"/>	
Normal		<input type="checkbox"/>	1/2 Max						<input type="checkbox"/>	<input type="checkbox"/>	
With different loads (Clause 6.3.2)											
Min		<input type="checkbox"/>	Min						<input type="checkbox"/>	<input type="checkbox"/>	
Intermediate 1		<input type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>	
1/2 Max		<input type="checkbox"/>	1/2 Max						<input type="checkbox"/>	<input type="checkbox"/>	
Intermediate 2		<input type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>	
Max		<input type="checkbox"/>	Max						<input type="checkbox"/>	<input type="checkbox"/>	
Limits of Indication (Clause 6.4)											
Over-range blanking is set correctly									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test	Instrument Zeroed?	Test Load (T)	Applied Load (L)	Indication					Result		
				Lift 1	Lift 2	Lift 3	Lift 4	Lift 5	P	F	N/A
Crowd Sensor (Clause 6.5)											
Out of crowd sensor activates								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Accuracy	<input type="checkbox"/>	1/2 Max							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tilting (Clause 6.6)											
Level	<input type="checkbox"/>	1/2 Max							<input type="checkbox"/>	<input type="checkbox"/>	
Front right out of level		1/2 Max							<input type="checkbox"/>	<input type="checkbox"/>	
Front left out of level		1/2 Max							<input type="checkbox"/>	<input type="checkbox"/>	
Rear right out of level		1/2 Max							<input type="checkbox"/>	<input type="checkbox"/>	
Rear left out of level		1/2 Max							<input type="checkbox"/>	<input type="checkbox"/>	
Hydraulic System Articulation (Clause 6.7)											
Slew to right	<input type="checkbox"/>	1/2 Max							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slew to left	<input type="checkbox"/>	1/2 Max							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transaction Record (Clause 6.8)											
Transaction record meets requirements of clause 6.8								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Overall Result								<input type="checkbox"/>	<input type="checkbox"/>		

Verifier's name.....Identification number.....

Signature.....

Comments.....