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At JLG our goal is to help make your work easier. We offer a full line of tools to help increase your productivity. The factory approved tools offered by JLG will help you get your equipment back on the job site quicker. We offer a long list of electrical, hydraulic, drive train, and general shop tools to help keep your equipment running.

How to Order
- Visit us online at onlineexpress2.jlg.com
- Call us at 1-877-554-5438
- Fax your order to 1-800-733-8939
**Item No. 2901443**  
**JLG Hand Held Analyzer**

The Analyzer Kit is essential for programming and troubleshooting JLG aerial work platforms. This is a must-have tool for any service technician.

Model Usage: JLG AWPs featuring ADE

**Features/Benefits**
- Compact size tool that you can carry with you to your job site
- Quick diagnostic for fault codes
- Adjust machine parameters on the job site
- Enable and disable machine features
- Configure new options
- High contrast LCD screen
- Kit includes Analyzer, Communication Cable, and Instruction Guide

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**Item No. 1600303**  
**OEM Optimizer Controller**

The optimizer is used to calibrate and configure settings on OEM Controllers utilized on JLG 600SC Machines.

Model Usage: Pre-ADE JLG 600SC and 660SJC

**Features/Benefits**
- Separate adjustments for all four channels
- Separate adjustments for each direction of handle movement
- Default settings with the touch of a button
- Adjustments can be made from the platform or ground
- Pre ADE

---

**Item No. 2900832**  
**Calibrator**

The Calibrator provides visibility to system information and enables you to adjust the speed or percentages of all functions to meet the required specs.

Model Usage: JLG 3369E, 3969E, 30E, 35E, 40E, 45E

**Features/Benefits**
- Allows for machine parameters to be adjusted on the job site
- The Calibrator is necessary to program earlier model JLG electric machines including 3369/3969E and the 30/35/40/45E machines
- Utilizes 4 buttons to complete machine set up
Item No. 7025944

Oscilloscope

The auto setup function takes care of all the necessary settings and makes the measuring of waveforms another time saving step for your service technician.

Model Usage: All JLG Equipment

Features/Benefits
- Up to 2 MHz analogue bandwidth
- 5 mV to 20 V/div in 12 steps
- 200 ns to 1 hour/div time base in 32 steps
- Trigger Mode: run, normal, once, roll, slope +/-
- Frequency readout (through markers)
- High contrast LCD screen

Item No. 1060629 (Serial Ports) or 1001137005 (USB Ports)

Nine Pin Serial Plug Cable

The Serial Plug Cable can be used on all JLG AWPs to download software or PC analyzer software.

Model Usage: All JLG AWPs

Features/Benefits
- Needed tool to connect PC to the JLG AWP
- This cable is a must have to be able to configure machine settings and options

The cable shown is for computers with serial port plug ins. JLG also offers cable PN 1001137005 for computers using USB style cable ports.

Item No. 4921299

Nine Pin Test Harness

The Nine Pin Test Harness was developed as an alternative to using multiple jumper wires to adjust the settings of a PQ controller.

Model Usage: JLG AWPs using PQ Controllers

Features/Benefits
- Factory Approved Test Harness
- More convenient than using jumper wires to change the settings on a PQ Controller.
**Item No. 4921300**

**Twelve Pin Test Harness**

The Twelve Pin Test Harness was developed as an alternative to using multiple jumper wires to adjust the settings of a PQ controller.

Model Usage: JLG AWPs using PQ Controllers

**Features/Benefits**

- Factory Approved Test Harness
- More convenient than using jumper wires to change the settings on a PQ Controller.

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**Item No. 4922012**

**Rexroth Harness**

The Rexroth Harness is used to make adjustments on Rexroth Control Cards in the platform control box.

Model Usage: JLG 400S/460SJ; 600S; 601S; 800A/AJ

**Features/Benefits**

- Harness includes wire, plug, housing, pins, and sockets
- Factory recommended and approved tool

---

**Item No. 4923341**

**Outrigger Jack Harness**

The Outrigger Jack Harness is an accessory harness used to retract the outriggers on JLG T350/T500J

Model Usage: JLG T350/T500J

**Features/Benefits**

- The outrigger jack harness is a complete harness with a push-button switch to activate the outriggers
- Always refer to the machine service manual before using this harness and completing repair work
**Item No. 4460510**

**Pin Extraction Tool**

The Pin Extraction Tool is used to remove pin and socket contacts from Deutsch (Cannon) style connections.

Model Usage: JLG AWPs and Deutsch Connections (Cannon Plugs)

**Features/Benefits**

- Designed for 16-18 gauge terminals
- Allows for Deutsch style connections to be repaired versus having to replace a complete harness
- Can be used on a variety of equipment

---

**Item No. 4460467**

**Pin Extraction Tool**

The Pin Extraction Tool is used to remove pin and socket contacts from Deutsch (Cannon) style connections.

Model Usage: JLG AWPs and Deutsch Connections (Cannon Plugs)

**Features/Benefits**

- Designed for 16-18 gauge terminals
- Allows for Deutsch style connections to be repaired versus having to replace a complete harness
- Can be used on a variety of equipment

---

**Item No. 4460519**

**Pin Extraction Tool**

The Pin Extraction Tool is used to remove pin and socket contacts from Deutsch (Cannon) style connections.

Model Usage: JLG AWPs and Deutsch Connections (Cannon Plugs)

**Features/Benefits**

- Designed for 20-24 gauge terminals
- Allows for Deutsch style connections to be repaired versus having to replace a complete harness
- Can be used on a variety of equipment
Item No. 7002823

**Pin Extraction Tool**

This is a universal extraction tool that accommodates six (6) pin sizes.

**Model Usage:** All Equipment

**Features/Benefits**

- One tool allows for repair work to be done on multiple sizes and styles of pins/contacts
- This tool is a great addition to any service truck with its many applications

Item No. 7002841

**Pin Extraction Tool P&G Power**

This extraction tool is used to eject the power terminals from the drive motors used on JLG Vertical Mast Products.

**Model Usage:** JLG DVL, DVSP, MSP

**Features/Benefits**

- Drive Motor replacement can be costly; using this factory approved and recommended tool will help reduce the risk of damaging connections

Item No. 7002854

**Pin Extraction Tool**

The Pin Extraction Tool is used to complete connection repairs on the electrical connections for Precision Governor Controller JLG PN 1600211.

**Model Usage:** JLG AWPs

**Features/Benefits**

- Some machines may require that the four pin connection on the harness be replaced when replacing the precision governor controller, this extraction tool is needed to complete that repair
- This tool is also part of JLG Kit 2910885
Item No. 7002830
Pin Extraction Tool
This Pin Extraction Tool is used to eject the electrical pins from Mini-Fit Connectors that are commonly used on JLG Vertical Mast Machines.
Model Usage: JLG Models VP, VPS, DVL, DVSP, MVL, MSP

Features/Benefits
- Factory recommended service tool
- Allows for connections to be repaired and avoid costly harness replacement

Item No. 7027910
JR Power Time Extraction Tool
This extraction tool is used to remove the connectors on JR Power Housings utilized on the JLG Compact Telehandlers.
Model Usage: JLG G5-19A and G6-23A

Features/Benefits
- Features a tool handle, tool cover with locking latches and an extraction tool tip

Item No. 7002842
Pin Extraction Tool P&G Brake
The Pin Extraction Tool is used to remove the electrical terminals for the drive units on some JLG Vertical Mast products.
Model Usage: JLG DVL, DVSP, MSP

Features/Benefits
- Drive Motor replacement can be costly; using this factory approved and recommended tool will help reduce the risk of damaging connections
Item No. 7027995

Pin Extraction Tool

This Pin Extraction Tool is used to remove the contacts from universal Mate-N-Lock connectors.

Model Usage: Mate-N-Lock Connectors

Features/Benefits
- Factory recommended service tool
- Allows for connections to be repaired and avoid costly harness replacement
- Designed specifically for mate-n-lock connections

---

Item No. 7002817

Pin Extraction Tool

This Pin Extraction Tool is used to remove positive lock connector contacts on your equipment.

Model Usage: All Equipment

Features/Benefits
- Features a screw driver style handle for precise grip
- Factory recommended and approved tool

---

Item No. 7024361

Calibration Tool

The Calibration Tool is used to calibrate the joystick controller on specific JLG machines.

Model Usage: JLG DVL, MVL, MSP, DVSP

Features/Benefits
- Plugs into a socket under the joystick controller
- Machine specific tool for the above listed models
**Item No. 7002848**

**Pin Extraction Tool**

This pin extraction tool is used to remove pin and socket contacts from Tyco and Multimate connections.

Model Usage: All Equipment

**Features/Benefits**

- Works with size 16 pin and socket contacts
- Will work on 2 different style connectors

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**Item No. 7002819**

**Pin Extraction Tool**

The Pin Extraction Tool is used to remove rectangular connector contacts.

Model Usage: All Equipment

**Features/Benefits**

- Used with .093" pin and socket contacts
- Design of the tool allows for socket contacts to be pushed out the back of the connector housing

---

**Item No. 7002828**

**Wire Stripper**

The Wire Stripper is an all purpose wiring tool for one step strip and slug removal.

Model Usage: General

**Features/Benefits**

- The Wire Stripper features knife type blades and strips wire up to 7/8".
- The Wire Stripper will reduce the risk of frayed or nicked wires
**Item No. 7002816**

**Crimping Tool**

This Crimping Tool is used to terminate wires ranging from 14-20 AWG.

**Model Usage:** All Equipment

**Features/Benefits**
- Ergonomic Design
- Features “Certi-Crimp” ratchet control
- Help reduce partial crimps

---

**Item No. 80963185**

**Hand Crimping Tool**

This Crimping Tool is used for crimping weather pack pin and sleeve terminals.

**Model Usage:** All Equipment

**Features/Benefits**
- Ratcheting style tool
- Allows for a complete crimp in a single cycle
- 14-20 AWG

---

**Item No. 7002818**

**Crimping Tool**

This tool is used to provide a precise crimp on Deutsch style pins used in HD/HDP style “Cannon Plugs.”

**Model Usage:** JLG AWPs and HD/HDP Connections

**Features/Benefits**
- Provides smooth ratcheting action
- More precise crimp of Deutsch pin
- Factory recommended service tool
**Item No. 77363326**

**Deutsch Crimping Tool**

This Crimping Tool is to crimp Deutsch style pins and sockets ranging in size from 20-12 gauge.

Model Usage: All Equipment

**Features/Benefits**
- Ergonomic Design
- Help reduce partial crimps

---

**Item No. 7025118**

**Fluke Multimeter**

The Fluke Multimeter is used for electrical troubleshooting to measure voltage, resistance, continuity, diode testing, and more.

Model Usage: All Equipment

**Features/Benefits**
- Large number display for easy reading
- Backlight for dim light areas
- Good for both AC and DC voltages and currents
- Shock and water resistant housing

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**Item No. 7002839**

**Pocket Sized Multimeter**

The Pocket Sized Multimeter is used for electrical troubleshooting to measure voltage, continuity, resistance, and diode testing.

Model Usage: All Equipment

**Features/Benefits**
- Compact size makes it ideal for job site
- Capable of performing a wide range of measurements
- Economically priced metering tool
**Item No. 7025945**

**Test Probe Pin**

The Test Probe Pin slides onto a test probe to ensure a good connection between a circuit under test and the measuring instrument.

Model Usage: All Equipment

**Features/Benefits**

- Insulated to protect from shorting other wires
- Tested to 60V DC

---

**Item No. 70010229**

**Back Probe Pin Set**

The Pin Set is used to check connections on MAP sensors as well as TPS sensors.

Model Usage: All Equipment

**Features/Benefits**

- Flexible 1 1/4" length
- Easy connection past weather pack seal to the connector conductors

---

**Item No. 7002800**

**Pin Extraction Tool**

This tool is used to remove the contacts from AMP style connectors. This tool is for use on 12 Gauge terminals.

Model Usage: AMP Connectors

**Features/Benefits**

- Factory Recommended approved tool
- Designed specifically for AMP connections
**Item No. 7025943**

**Battery / Alternator Tester**

The Tester can be used to perform a state of charge test on both conventional and maintenance free batteries. In addition, the Tester can be used to check for faulty regulators and defective output diodes.

Model Usage: All Equipment

**Features/Benefits**
- Used for both 6V and 12V systems
- Heavy duty insulated clamps
- 300 Amp Jaws

---

**Item No. 7025942**

**Rechargeable Soldering Iron**

The Rechargeable Soldering Iron is used to both install electrical components as well as repair components.

Model Usage: All Equipment

**Features/Benefits**
- Built in work light
- Tip heat of 700 degrees can be achieved in 6 seconds
- Solder up to 100 joints per charge

---

**Item No. 7002805**

**Applicator Tool**

The Applicator Tool is used when completing repairs on printed circuit board terminals and disconnects.

Model Usage: All Equipment

**Features/Benefits**
- Allows for easy termination of pre-cut wires
- Helps position the wire to the correct depth in the terminal
Item No. 2915221

**GM Diagnostic Kit**

The GM Diagnostic Kit is used to troubleshoot fault codes on a GM Engine.

Model Usage: JLG AWP

**Features/Benefits**

- This is a complete kit with GM Interface Cable, GM Diagnostic Cable, and GM Diagnostic Software

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Item No. 70010393

**Cummins Analyzer Kit**

The Cummins Analyzer Kit is used to read fault codes, engine configurations, and to change operating parameters of a Cummins Engine.

Model Usage: JLG Telehandler

**Features/Benefits**

- Kit includes handheld device, USB Cable, 9 pin data link cable, 6 pin data link cable, software, and a storage case.
Item No. 4071009
Swing Drive Shim
The Swing Drive Shim is used to help set the gear backlash when completing repairs on the swing drive assembly.
Model Usage: JLG E600

Features/Benefits
- Conforms to 5/7 pitch fellow stub gear tooth
- Designed to fit between the pinion and bearing high spot
- Once backlash is set shim is removed and discarded

Item No. 4120040
Hex Socket 3/4"
This socket is a machine specific socket used to torque the wire rope adjustment nuts on the machines listed. This socket is used on the fly extend adjuster nuts.
Model Usage: JLG 1200/1350SJP

Features/Benefits
- Socket has a common 3/8" square drive
- Socket is 6" length to provide the necessary reach to adjust the boom cables

Item No. 4120043
2" Hex Socket
This socket is a machine specific socket used to torque the wire rope adjustment nuts on the machines listed. This socket is used on the mid extend/retract and the fly boom retract adjuster nuts.
Model Usage: JLG 1200/1350SJP

Features/Benefits
- Socket has a common 1/2" square drive
- Socket is 8" length to provide the necessary reach to adjust the boom cables
**Item No. 7016652**

**Small Huck-Bolt Installation Tool**

The Small Huck-Bolt Installation Tool is used to install small huck magna-lock blind fasteners to the platform gate for any make model machine. This tool is operated by hand-power, making it ideal for use in the field where power supplies are limited.

Model Usage: JLG AWPs

**Features/Benefits**

- Requires minimum operator effort to develop maximum pull

---

**Item No. 1001128892**

**Electric Scissor Lift Maintenance Safety Prop**

The Safety Prop is used to support partially raised scissor arms when performing maintenance.

Model Usage: JLG 1930ES, 2030ES, 2630ES, 2646ES, 3246ES

**Features/Benefits**

- No tools required for installation
- Supports partially raised scissor arms
- Great way to reach economy order

---

**Item No. 7002822**

**Potentiometer Screwdriver**

The Potentiometer Screwdriver is used to make adjustments to the potentiometer / speed controller on your machine.

Model Usage: JLG AWPs

**Features/Benefits**

- Convenient tool that will fit in your pocket
- Also included in kit PN 7016653
Item No. 4340710
AWP Service Boom Stand

The Service Boom Stand is a JLG endorsed maintenance device. This is a heavy duty structure that will support the boom of your machine during maintenance and repair.

Model Usage: JLG Boom Lifts (Excluding All Ultra Booms and 150HAX)

Features/Benefits
■ Supports loads up to 3,600 lb. (1,633 kg)
■ JLG endorsed
■ High gauge steel construction
■ Extends up to 11 feet in total height

Item No. 7024526
Hand Held Torch

The Hand Held Torch is used as a plasma cutter to cut metal.

Model Usage: JLG Boom Lifts

Features/Benefits
■ The Hand Held Torch can be mounted on JLG Boom Lift’s with side entry platforms
■ Comes with a 20 foot cable
■ Always refer to appropriate machine manuals prior to installing optional components

Item No. 7016655
Wire Rope Sheave Gauge

The Wire Rope Sheave Gauge is used to inspect the dimensions of wire rope sheaves inside the boom.

Model Usage: JLG Boom Lifts

Features/Benefits
■ Technicians can use this gauge to ensure that sheaves have the proper wear and dimensions
■ This part is included in JLG Special Tool Kit PN 7016653
Item No. 7025800

Drum Brake Adjustment Tool

The Drum Brake Tool is used to adjust the clearance between the brake drum and brake shoe on your equipment.

Model Usage: General

Features/Benefits
- Another multi use tool offered by JLG to make work easier around the shop and out on the job site

Item No. 7025801

Brake Bleeder Wrench

The Brake Bleeder wrench is used to bleed a brake system. It is essential to use the correct tool for this job to avoid rounding off the bolt.

Model Usage: General

Features/Benefits
- The Brake Bleeder Wrench features a 3/8” 6 point head and also a 7/16” 12 point head.

Item No. 7025304

Fork Caliper

The Fork Caliper is used to measure wear on your telehandler forks.

Model Usage: Telehandlers

Features/Benefits
- The Fork Caliper is a handy tool to let you know when forks are worn and unreliable. The Caliper will let you know when forks need to be replaced.
Item No. 7016653
Special Tool Kit
The Special Tool Kit includes the following tools: pin extraction tools, cylinder seal tools, and screwdrivers.
Model Usage: JLG AWPs and Telehandlers

Features/Benefits
- This kit combines many of the most common JLG tools into one tool case
- JLG recommended and approved
- Great addition to any service truck

Item No. 7014676
Tool Kit
The Tool Kit is a great addition to any service truck. The kit contains many of the common tools needed for any job site.
Model Usage: General

Features/Benefits
- Four Piece Crescent Wrench Set
- Allen Wrench Set
- Magnetic Bit Driver Set
- Combination Wrench Set Standard Sizes
- Tool Box

Item No. 7016654
Magnetic Pocket Screwdriver
The Magnetic Pocket Screwdriver is a convenient tool that comes in handy around the shop or on any job site.
Model Usage: All Equipment

Features/Benefits
- Small enough to carry in your pocket
- Ideal for working in confined areas
- The driver blade has both a flat blade and a Phillips blade
- Included in JLG Special Tool Kit PN 7016653
**Item No. 7025116**

**48" SmartLevel Tool**

The SmartLevel is used to measure surface angles in a precise manner.

Model Usage: General

**Features/Benefits**

- Accurate measuring of surface angles
- Large number display
- Backlight for dim areas
- Audible tone alerts for level or plumb

---

**Item No. 7025117**

**Angle Finder**

The Angle Finder is used to read angles ranging from 0-90 degrees in any quadrant.

Model Usage: General

**Features/Benefits**

- Features a magnetic base
- Includes angle and grate chart

---

**Item No. 7025799**

**Tire Pressure and Tread Depth Gauge**

This digital tool is utilized to check air pressure in tires as well as measure tread depth.

Model Usage: General

**Features/Benefits**

- Pressure Gauge reads a range from 2 to 150 psi
- Tool has an automatic off switch to extend the life of the battery
- Compact enough to fit in your pocket
Item No. 7027854

Multi-Tow Adapter

The Multi-Tow Adapter is used to convert a 7 pole vehicle plug to a 6 pole plug and a 4 pole flat plug to fit the necessary trailer connector.

Model Usage: General

Features/Benefits

- The adapter provides two towing options
- This is a great add on to your JLG parts order
Item No. 7027247
Hydraulic Hose Removal Tool

The Hydraulic Hose Removal Tool is used to remove hydraulic pressure lines on the JLG machines listed below.

Model Usage: JLG Vertical Mast SSV10, 10MSP, 15MVL, 15MSP, 20MVL, 20MSP

Features/Benefits
- This tool features a 90 degree end for use on straight fittings and a flat end to be used on angled fittings

---

Item No. 70000555
Valve Seat Removal Tool

The Valve Seat Removal Tool is used to remove the main relief valve located in the power packs on ES Scissor Lifts.

Model Usage: JLG ES Scissor Lift

Features/Benefits
- Reduces the risk of damaging the valve and manifold block when replacing the main relief valve on ES

---

Item No. 7002840
Anti-Rotation Pin Removal Tool

This tool is used to remove the pin when servicing the cam valves used on JLG AWP’s. This valve is also known as the lockout valve and is located in the machine’s turntable.

Model Usage: JLG Boom Lifts

Features/Benefits
- This tool comes with the head, extractor, and necessary hardware.
Get your equipment back on the job site more efficiently with the cylinder repair tools listed below for JLG 1200/1350SJP 1250AJP and 340AJ.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Tool Description</th>
<th>Machine Model</th>
<th>Specific Cylinder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001106846</td>
<td>Head Install Sleeve</td>
<td>1200/1350SJP &amp; 1250AJP</td>
<td>Main Lift and Tower Lift Cylinder</td>
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<tr>
<td>1001106847</td>
<td>Piston Install Sleeve</td>
<td>1200/1350SJP &amp; 1250AJP</td>
<td>Main Lift and Tower Lift Cylinder</td>
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<tr>
<td>1001106848</td>
<td>Piston Go Gauge Tool</td>
<td>1250AJP</td>
<td>Main Lift and Tower Lift Cylinder</td>
</tr>
<tr>
<td>1001107000</td>
<td>Head Install Sleeve</td>
<td>1250AJP</td>
<td>Upper Lift Cylinder</td>
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<tr>
<td>1001107001</td>
<td>Piston Install Sleeve</td>
<td>1250AJP</td>
<td>Upper Lift Cylinder</td>
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<tr>
<td>1001107002</td>
<td>Piston Go Gauge Tool</td>
<td>1250AJP</td>
<td>Upper Lift Cylinder</td>
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<td>1001107143</td>
<td>Head Install Sleeve</td>
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<td>Tower Telescope Cylinder</td>
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<td>Tower Telescope Cylinder</td>
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<td>Tower Telescope Cylinder</td>
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<td>70003077</td>
<td>Dust Wiper Press Tool</td>
<td>340AJ</td>
<td>Tower Lift and Steer Cylinder</td>
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<td>70003078</td>
<td>Bushing Press Tool</td>
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<td>Tower Lift and Steer Cylinder</td>
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<td>70003080</td>
<td>Head Seal Protection Tool</td>
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<td>Dust Wiper Press Tool</td>
<td>340AJ</td>
<td>Master, Platform, Level and Telescope Cylinder</td>
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<td>70003090</td>
<td>Du Bushing Press Tool</td>
<td>340AJ</td>
<td>Master, Platform, Level, and Telescope Cylinder</td>
</tr>
</tbody>
</table>

Item No. 70010878

**Hydraulic Flow Meter**

The Flow Meter is used when troubleshooting your equipment’s hydraulic system by monitoring the volume of hydraulic fluid that is flowing through the hydraulic circuit.

Model Usage: JLG Boom Lifts & Telehandlers

**Features/Benefits**

- The Flow Meter measures a flow range of 3-30 GPM
- Max operating pressure 3500PSI
- Utilizes a 3/4” NPT port
**Item No. 7002826**

**Cylinder Seal Installation Tool (“Pretzel Maker”)**

This tool is used to install the cylinder rod seals when repairing a hydraulic cylinder.

Model Usage: General

**Features/Benefits**
- Designed for .75”-1.5” cylinder rods
- Reduces the risk of damaged or cut seals during cylinder repair

---

**Item No. 7002832**

**3.75” Stop Ring Wrench Tool**

The Stop Ring Wrench Tool is used to remove and install the stop rings when assembling or disassembling hydraulic cylinders.

Model Usage: General

**Features/Benefits**
- Factory approved and recommended tool
- Hydraulic cylinder repair made easier with the proper tools for the job
- Designed for 3.75” outside diameter sleeve or barrel

---

**Item No. 7002835**

**6.75” Stop Ring Wrench Tool**

The Stop Ring Wrench Tool is used to remove and install the stop rings when assembling or disassembling hydraulic cylinders.

Model Usage: General

**Features/Benefits**
- Factory approved and recommended tool
- Hydraulic cylinder repair made easier with the proper tools for the job
- Designed for 6.75” outside diameter sleeve or barrel
Item No. 70000652
Hydraulic Pressure Dial Gauge Kit

This quality Gauge Kit is used to check and adjust operating pressures for optimum productivity of your equipment.

Model Usage: General

Features/Benefits
- Assures optimum productivity
- Easy way to check and adjust the operating pressure on your machine
- Replacement components available

Replacement Components for Kit PN 70000652

<table>
<thead>
<tr>
<th>Replacement Part Number</th>
<th>Description</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>2220427</td>
<td>Hydraulic Quick Coupling</td>
<td>Female Style Quick Disconnect</td>
</tr>
<tr>
<td>2220428</td>
<td>Hydraulic Quick Coupling</td>
<td>Male Style Quick Connect</td>
</tr>
<tr>
<td>7024546</td>
<td>1/4 NPT</td>
<td>SMA20-1-1/4NPT-V</td>
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<td>20/20 Hose Union Adapter</td>
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<td>7024550</td>
<td>98&quot; Hose Assembly</td>
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<td>7024551</td>
<td>192&quot; Hose Assembly</td>
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2220427  2220428  7024546  7024547  7024548  7024549  7024551  7024555
Item No. 70000101
Digital Hydraulic Pressure Test Kit

This high pressure digital gauge kit makes checking hydraulic pressures easier. The digital display helps reduce the potential for error in readings. This kit has a range of 8,000 psi.

Model Usage: General Usage

Features/Benefits
- User-friendly digital display
- Precise +/- .5% full scale accuracy
- Replacement parts available
- Four digit display

Replacement Components for Kit PN 70000101

<table>
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<tr>
<th>Replacement Part Number</th>
<th>Description</th>
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<tr>
<td>7025790</td>
<td>Short Testing Hose</td>
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<tr>
<td>7025791</td>
<td>Long Testing Hose</td>
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<tr>
<td>7025793</td>
<td>1/4” Female Disconnect</td>
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<tr>
<td>7025806</td>
<td>Diagnostic Q-C Fitting</td>
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<tr>
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<td>1/4” Test Adaptor</td>
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<td>1/8” Test Adaptor</td>
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<tr>
<td>77133089</td>
<td>9/16” Test Adaptor</td>
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<tr>
<td>91053020</td>
<td>7/16” Test Adaptor</td>
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<td>Direct Gauge Adaptor</td>
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<td>7024557</td>
<td>Extra O-Rings</td>
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<td>7024547</td>
<td>Union Fitting</td>
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<td>7025788</td>
<td>Protective Boot</td>
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Item No. 70011039

Hydraulic Pump Load Test Kit

The Hydraulic Pump Load Test Kit is an easier and more convenient way to load test your hydraulic pump. Verifying pressure and output flow will help identify maintenance or replacement requirements without a major investment.

Model Usage: All JLG Equipment

Features/Benefits

- Test under simulated load conditions
- No need for permanently mounted gauges
- Indication of successful new component installation
- Several JIC adapters for #4, #6, or #8 circuits
- Several additional cutouts provided for additional adapters

Item No. 7133413

Skytrak Pressure Test Kit

This pressure testing kit is designed specifically with Skytrak equipment in mind.

Model Usage: Skytrak Telehandlers

Features/Benefits

- This kit includes all necessary testing equipment such as gauges, fittings and hoses
- Kit also comes with hydraulic schematics for pre-JLG Skytrak equipment

Item No. 7301438

STC Hose Tool

The STC Hose Tool is used to remove STC style hoses from the block located in the transfer carriage for the extend / retract and lift / lower circuits.

Model Usage: Lull 644E/944E

Features/Benefits

- The STC Hose Tool is a factory approved and recommended tool to be used to release the snap lock style connections on the hoses listed above
Item No. 91474611

Specialized Fitting

The Specialized Fitting is needed to check hydraulic pressure on a Dana transmission.

Model Usage: G642A & G9-43A equipped with Dana Transmission

Features/Benefits

- Specific fitting designed for Dana transmission testing
- Available as a replacement part or with JLG PN 7027911

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Item No. 8430045

Quick Connect Fitting

The Quick Connect Fitting is used to when hydraulic pressures are being tested or adjusted on Skytrak and Lull machines.

Model Usage: Skytrak and Lull Telehandlers

Features/Benefits

- 1/4"-18
- This fitting is available for purchase and is also included with Part Number 7027911
Item No. 2915221

GM Diagnostic Kit

The GM Diagnostic Kit is used to troubleshoot fault codes on a GM Engine.

Model Usage: JLG AWP

Features/Benefits

- This is a complete kit with GM Interface Cable, GM Diagnostic Cable, and GM Diagnostic Software

Item No. 0080229

Torque Clutch Adapter Tool

The torque clutch adapter tool is used to check the torque clutch setting on JLG Vertical Mast products.

Model Usage: JLG VP, VPSP, DVL, DVSP

Features/Benefits

- Hex style adapter
- 2" Length
- The adapter tool will be used in regular intervals as part of the maintenance on your JLG Vertical

Item No. 2915027

Rear Wheel Puller

The Rear Wheel Puller is used to remove the drive wheel on some JLG Vertical Mast Machines.

Model Usage: JLG SSV10 and MSP

Features/Benefits

- Can be tightened against the drive shaft to remove the drive wheels on the equipment listed
- A JLG recommended service tool
Item No. 2915159

ZF Transmission Test Fitting Kit

This test fitting kit provides all of the specialized fittings required to check pressure on a ZF Transmission.

Model Usage: Lull, Skytrak, and JLG G-Series Telehandlers

Features/Benefits

- Kit includes the following fittings:
  - PN 77363046 Adapter 7/16-20 JIC Male/M10
  - PN 91403258 Adapter 1/4 SAE 37 Degree/M10/90 Degree
  - PN 8430036 Nipple Diag .435

Item No. 7025112

ZF Transfer Box Seal Installer

The Transfer Box Seal Installer is used to install shaft seal PN 1320755 into the transfer housing.

Model Usage: Skytrak Telehandlers 6036, 6042, 8042, 10042, 10054 and JLG G10/G12-55A

Features/Benefits

- Reduce the risk of damaging seal during installation
- JLG recommended service tool

Item No. 7025113

ZF Lock Plate Installer

The Lock Plate Installer is used to press on the lock plate when working ZF Transmission.

Model Usage: Skytrak Telehandlers 6036, 6042, 8042, 10042, 10054 and JLG G10/G12-55A

Features/Benefits

- This tool will work on both lock plate PN 7029033 and lock plate PN 1319469 depending on your specific application
- JLG recommended service tool
Item No. 7025110

ZF Special Brake Seal Kit Adaptor

This Adaptor is used to install the input seal that is included in brake seal kit JLG PN 7029104.

Model Usage: Skytrak 6036, 6042, 8042 and Lull 644E, 944E equipped with ZF MS-T 3045 axle

Features/Benefits
- Attempting to install seals without the correct tools can lead to damaged seals and more machine down time
- Use this JLG approved and recommended tool to reduce the risk of damaging the seals during repair

Item No. 7025111

ZF Brake Seal Kit Driver

The ZF Brake Seal Kit Driver is used to install the shaft seal into the axle joint housing.

Model Usage: Telehandlers equipped with ZF

Features/Benefits
- Need to properly install the shaft seal that is included in Brake Seal Kit JLG PN 7029104.
- Use this JLG approved and recommended tool to reduce the risk of damaging the seal during repair

Item No. 7025854

ZF Two Arm Puller

The ZF Two Arm Puller has multiple uses in completing axle repairs.

Model Usage: Telehandlers equipped any of the following ZF Axles MS-T 3045, MS-T 3060, MS-T 3045II, MS-T 3060II (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

Features/Benefits
- Jaw width 350mm and throat depth 250mm
- Universal tool that has several functions including removing the hub from joint housing, removing the bearing inner ring from joint housing, and to press out bevel pinion from the axle housing
**Item No. 7029738**

**ZF Seal Driver**

The ZF Seal Driver is used to install shaft seal PN 1321164 or shaft seal PN 7028977 into the axle joint housing.

**Model Usage:** Machines equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- Using the correct tool for the job can reduce the risk of damaging seals when completing axle repairs and get your equipment back on the job site faster

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**Item No. 7029739**

**ZF Seal Driver**

The ZF Seal Driver is used to install shaft seal PN 8036754 into the axle joint housing.

**Model Usage:** Machines equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- Using the correct tool for the job can reduce the risk of damaging seals when completing axle repairs and get your equipment back on the job site faster

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**Item No. 7029740**

**ZF Driver Handle**

The ZF Driver Handle is used in conjunction with ZF Seal Drivers PN 7029738 and PN 7029739.

**Model Usage:** Machines equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- Using the correct tool for the job can reduce the risk of damaging seals when completing axle repairs and get your equipment back on the job site faster
**Item No. 70010239**

**ZF Axle Two Leg Puller**

This tool is considered a universal puller and is commonly used in axle disassembly to pull the planetary gear and also for pressing the tie rod end from the axle joint housing.

Model Usage: Telehandlers equipped with ZF MS-T 3045II and MS-T3060II axles (including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- A universal tool that can be used for several functions during axle disassembly
- Jaw width 170mm
- Throat depth 125mm

**Item No. 70010240**

**ZF High-Gripper**

The ZF High-Gripper is used to remove tapered roller bearing inner ring from the axle joint housing.

Model Usage: Telehandlers equipped with ZF MS-T3060 (including Skytrak 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- This tool can be used in conjunction with ZF Tools PN 70010241

**Item No. 70010241**

**ZF Threaded Ring**

The ZF Threaded Ring is used in conjunction with the High-Gripper to remove the tapered roller bearing inner ring from the axle joint housing.

Model Usage: Telehandlers equipped with ZF Axle MS-T3060 (including Skytrak 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- This tool is used in conjunction with ZF Tools PN 70010240
**Item No. 70010281**

**ZF Slotted Nut Wrench Tool**

The ZF Slotted Nut Wrench Tool is used to install and remove the slotted nut utilized on steer cylinders on the ZF Axles listed.

Model Usage: Telehandlers equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- The Nut Wrench Tool will reduce the risk of damaging or rounding off the slotted nut on the steer cylinder

**Item No. 70010282**

**ZF Assembly Ring**

The ZF Assembly Ring is used to pre load the cup springs PN 1321208 when working on the axle brakes on the ZF Axles listed.

Model Usage: Telehandlers equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- The Assembly ring helps to fasten and unfasten the snap ring when pre loading the cup springs

**Item No. 70010283**

**ZF Installer Tool**

The ZF Installer Tool is used to install the slip ring into the annular grooves of the piston rod when assembling the steer cylinder.

Model Usage: Telehandlers equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- Using the correct tool for the job can reduce machine time and get your equipment back up and running more efficiently
Item No. 70010284

**ZF Installer Tool**

The ZF Assembly Ring Tool is used to mount the slip rings onto the piston rod when assembling the steer cylinder.

Model Usage: Telehandlers equipped with ZF MS-T 3045 and MS-T 3060 axles (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- Using the correct tool for the job can reduce machine time and get your equipment back up and running more efficiently

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Item No. 70010285

**ZF Extracting Tool**

This ZF Extracting Tool is used to remove the double universal joint from the axle joint housing.

Model Usage: Telehandlers equipped with ZF MS-T3045 and MS-T3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- Provides the mechanic with necessary tool and leverage to press off the double joint from the joint housing

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Item No. 70022867

**ZF Torque Spanner Wrench**

The ZF Torque Spanner Wrench is used to check the rolling moment of the swivel bearing at the wheel ends.

Model Usage: Telehandlers equipped with ZF Axle MS-T3045 and MS-T3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**

- When installing new roller bearing it is essential that the upper value of rolling moment is achieved. The Torque Spanner Wrench Tool helps to ensure this is done accurately.
**Item No. 70022872**

**ZF Internal Extractor (45-58mm)**

The ZF Internal Extractor can be used to remove bearings in both ZF axles and ZF transmissions. This extractor can also be used to remove axle shaft seals as well as roller bearing outer rings.

**Model Usage:** Telehandlers equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- Multi use tool for repair work on ZF axles and transmissions
- 45mm-58mm

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**Item No. 70022873**

**ZF Internal Extractor (70-100mm)**

The ZF Internal Extractor can be used to remove bearings, seals, and bushings in ZF Axles. It is also used to remove axle shaft seals as well as roller bearing outer rings.

**Model Usage:** Telehandlers equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- Multi use tool for repair work on ZF axles and transmissions
- 70mm-100mm

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**Item No. 70023173**

**ZF Back Off Insert**

The ZF Back Off Insert is to assist in the disassembly of the output portion of the axle. This tool helps to separate the bearing inner ring from the bearing pin.

**Model Usage:** Telehandlers equipped with ZF Axle Model MS-T 3045 and MS-T 3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- Using the correct tool for the job can reduce machine down-time and get your equipment back up and running more efficiently
**Item No. 700110101**

**ZF Driver**

The ZF Driver is used to install hub seals JLG PN 7028977 and JLG PN 1321164.

Model Usage: Telehandlers equipped with ZF MS-T 3045 and MS-T 3060 axles (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- JLG recommends use of this tool to reduce the risk of damaging seals during installation. Damaged seals can be costly and create more down time for your equipment.

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**Item No. 70010245**

**ZF Counter Support**

This ZF Extracting Tool is used to remove the double universal joint from the axle joint housing.

Model Usage: Telehandlers equipped with ZF MS-T3045 and MS-T3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- JLG recommended service tool when working on ZF axles; having the correct tool for the job can help get your equipment back on the job site sooner

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**Item No. 70010244**

**ZF Puller / Extractor**

This ZF Puller / Extractor is used to remove the bushing and shaft seal from the axle casing. This tool is also used to install the double joint into the joint housing.

Model Usage: Telehandlers equipped with ZF MS-T3045 and MS-T3060 (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

**Features/Benefits**
- The ZF Puller / Extractor is a multi use tool
- When used as a puller this tool will assist in making sure the double universal joint is pulled into the axle joint housing until contact
Item No. 80304486
ZF Two Leg Puller

The ZF Two Leg Puller is used to press off the hub from the axle joint housing.

Model Usage: Telehandlers equipped with ZF MS-T 3045, MS-T 3060, MS-T 3045II, and MS-T 3060II (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

Features/Benefits
- The ZF Two Leg Puller will provide the technician with factory approved tool to provide the leverage to assist in removing the hub from the axle joint housing.

Item No. 7025190
ZF Axle Alignment Tool

The ZF Axle Alignment Tool is used to assist in proper alignment of the axle shaft.

Model Usage: Telehandlers equipped with ZF MS-T 3045, MS-T 3060, MS-T 3045II, and MS-T 3060II (Including Skytrak 6036, 6042, 8042, 10042, 10054 and Lull 644E, 944E, 1044C-54)

Features/Benefits
- JLG recommended service tool when working on ZF axles; having the correct tool for the job can help get your equipment back on the job site sooner

Item No. 7029574
Carraro Bearing Cup Tool Kit

The Carraro Bearing Cup Tool Kit is used to help seat the bearings when assembling the pinion and central body assembly.

Model Usage: Gradall Telehandlers equipped with Carraro axles

Features/Benefits
- It is important to make sure during this assembly process that the bearings are properly seated. This tool kit helps to ensure this is accomplished.
Item No. 7029575

Carraro Dummy Pinion Kit

The Carraro Dummy Pinion Kit is used to eliminate the backlash when seating the bearings in the central body assembly.

Model Usage: Gradall Telehandlers equipped with Carraro axle

Features/Benefits

- The Dummy Pinion Kit will reduce the risk of damaging the bearings and the central body while assembling this portion of the axle

Item No. 8035818

Carraro Wrench

This Wrench is utilized to assist in the disassembly of the differential on a Carraro Axle.

Model Usage: Telehandlers equipped with Carraro Axles

Features/Benefits

- Helpful tool for unscrewing the adjuster ring nuts
- JLG recommended service tool

Item No. 8035819

Carraro Brake Presser Tool

The Carraro Brake Presser Tool is used in the disassembly of the brake cylinder used on a Carraro Axle.

Model Usage: Telehandlers equipped with Carraro Axle

Features/Benefits

- This tool provides the technician with a tool that will make disassembling the brake cylinder easier by releasing the snap ring
- This multi use tool is also used during cylinder assembly to insert the negative brake piston inside the cylinder
**Item No. 91474603**

**Carraro Bushing Driver Tool**

The Carraro Bushing Driver Tool is used to install the bushings in the spindle housing.

Model Usage: Skytrak Model 3606 equipped with Carraro Axle

**Features/Benefits**

- The Bushing Driver is a factory approved tool from Carraro that will reduce the risk of damaging bushings during installation and make sure they are installed to the correct depth.

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**Item No. 91474604**

**Carraro Seal Driver Tool**

The Carraro Seal Driver is used to seal into the spindle housing on the Carraro axle listed.

Model Usage: Skytrak Model 3606 equipped with Carraro Axle

**Features/Benefits**

- This tool is needed to make sure that the spindle seals are properly seated during hub assembly.
- Seals can be damaged during this process if the correct tools are not used.

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**Item No. 91474605**

**Carraro Pinion Nut Tool**

The Carraro Pinion Nut Tool is used to unscrew the pinion nut when disassembling the Carraro Axle pinion group.

Model Usage: Telehandlers equipped with Carraro Axles

**Features/Benefits**

- The threads on the pinion nut can be damaged if the correct tools are not used for the job. This JLG recommended service tool will reduce the risk of damaging the threads.
**Item No. 91474613**

**Carraro Seal Driver**

The Carraro Seal Driver is used to install the pinion seal into axle’s central housing.

**Model Usage:** Telehandlers equipped with Carraro axle

**Features/Benefits**

- The Carraro Seal Driver helps to ensure that the pinion seal is properly seated without damaging the seal.

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**Item No. 7027857 (socket) and 7027856 (adaptor)**

**Carraro Spanner Socket and Adaptor Tool**

This tool combination is used to remove the pinion nut.

**Model Usage:** Skytrak Telehandlers equipped with Carraro Axles

**Features/Benefits**

- These tools are used in conjunction with one another to remove the pinion nut.

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**Item No. 7118842**

**Dana Axle Brake Piston Tool**

The Dana Axle Brake Piston Tool is used to assist in the installation of the axle brake piston.

**Model Usage:** Telehandlers equipped with Dana Axle

**Features/Benefits**

- This tool helps to prevent sheared or pinched O-rings by rotating the piston as it is pressed into the O-rings.
**Item No. 70010156**  
**Bearing Cone Tool**  
The Bearing Cone Tool is used to assist in the reassembly of the power wheel on certain Gradall Machines.  
Model Usage: Gradall Telehandler Models 534D9, 534D10, and 544D  
**Features/Benefits**  
- Used to press bearing cone over the spindle  
- More efficient way to make sure bearing is properly placed versus using a hammer and a driver and less likely to damage the bearing or spindle

**Item No. 70010157**  
**Spindle/Shaft Drive Tool**  
The Spindle/Shaft Drive Tool is used to assist in the disassembly of the power wheel assembly used on certain Gradall Machines  
Model Usage: Gradall Telehandler Models 534D9, 534D10, and 544D  
**Features/Benefits**  
- The Spindle/Shaft Drive Tool is designed to bolt to the drive hub  
- Features a bolt in the center that is turned and provides the mechanic with the force needed to separate the spindle from the drive hub  
- Will reduce the risk of damaging splines

**Item No. 91144325**  
**Special Locknut Wrench**  
The Special Locknut Wrench is used to assist in the disassembly of the power wheel assembly used on certain Gradall Machines  
Model Usage: Gradall Telehandler Models 534D9, 534D10, and 544D  
**Features/Benefits**  
- The Locknut Wrench is specially designed to fit on the locknut  
- Use of this tool will reduce the risk of rounding off the nut or damaging the threads during removal
# JLG AWP Boom Lifts Specialty Tools

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