

John Deere Mower-Conditioners Models 710, 720 Diagnostic and Repair Technical Service Manual (tm1619)

MACHINE DESCRIPTION



The John Deere 710 and 720 mower-conditioners are a side pull design utilizing a mechanical PTO driveline. These machines come equipped with a reciprocating (sickle) type cutterbar, a reel consisting of four tooth bars, and a roll type conditioner.

The machine consists of the following major assemblies:

- Carrier Frame
- Platform
- Tongue Assembly
- Wheel Assemblies
- Windrow Forming Shields

The carrier frame consists of a main frame that runs the full width of the machine. The carrier frame supports all the other major assemblies.

The platform contains the cutterbar, reel, conditioner, and related drive components. The platform connects to the carrier frame through a three-point suspension system.

A hydraulic lift cylinder, controlled by tractor hydraulics, raises and lowers the platform. The cylinder makes up part of the third link of the three-point suspension and is located at top center of the carrier frame.

The tongue is constructed of heavy steel tubing. The tongue houses the PTO driveline and attaches to the left side of the carrier frame. The tongue can pivot relative to the carrier frame to allow the machine to

consist of separate forming shields that direct the freshly cut and conditioned crop into a windrow. The forming shields connect directly to the carrier frame and use an adjustable panel for controlling windrow width.

The wheel spindles are welded directly to the carrier frame.

PDF



DOWNLOAD



Type: Service Manual

Language: English

Pages: 254

Format: PDF

Features: Bookmarked, searchable, printable

Compatibility: Windows/Mac/Tablet/Mobile

This service manual contains important information for the maintenance, troubleshooting and servicing of the **John Deere Mower-Conditioners Models 710, 720 Diagnostic and Repair Technical Service Manual (tm1619)**

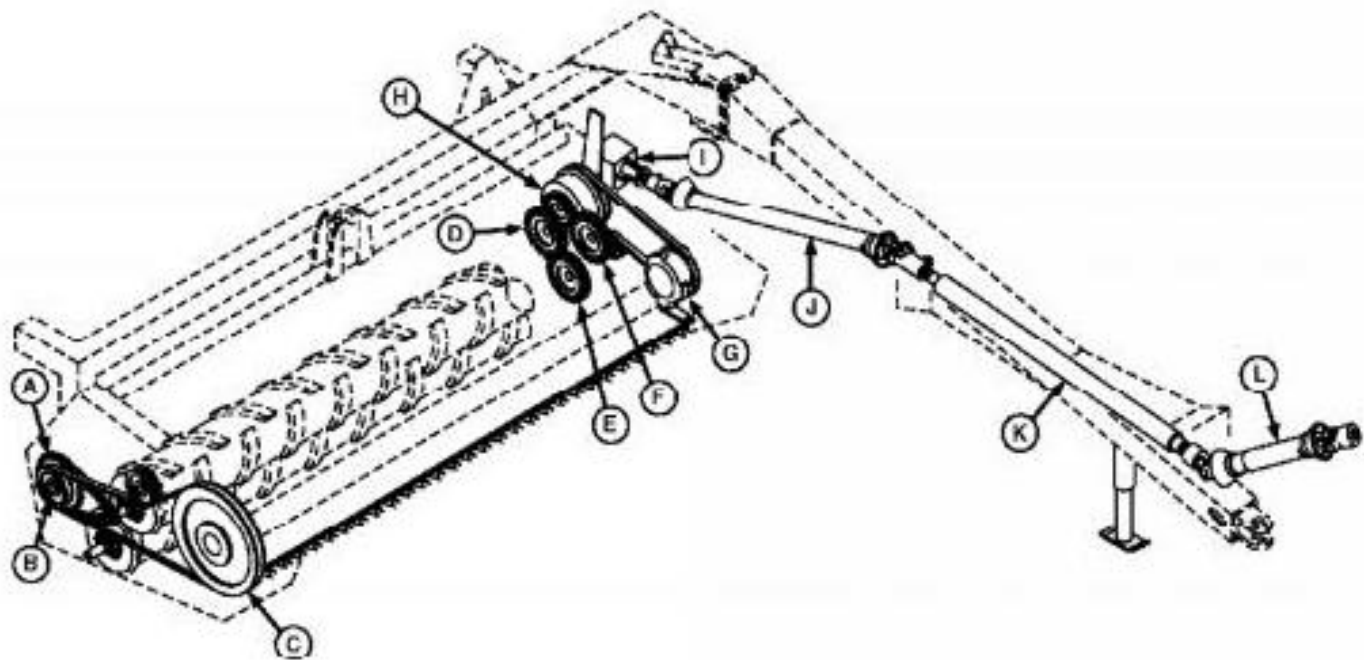
In this manual you will find detailed specifications, illustrations, schematics, diagrams and step-by-step procedures to properly service and diagnose the machine to the manufacturer's standards.

Contents:

- General Information
- Specifications
- Serial Number Location
- Engine Specifications
- Engine Diagnostics
- Engine Tests and Adjustments
- Engine Repair
- Power Train
- Transmission
- Axles
- Differential
- PTO
- Hydraulic System
- Electrical System
- Electrical Tests and Diagnostics
- Wiring Diagram / Schematic
- Ignition and Charging
- Steering
- Brakes
- Wheels
- Operator's Platform
- Body Panels
- Disassembly and Assembly
- Diagnostics, Tests and Adjustments
- Troubleshooting
- and much more...

Please note this manual is in **downloadable PDF format only**. If you have any questions about this product or would like to request sample pages, please contact us and reference the product name or SKU.

POWER TRAIN OPERATION



A—Sprocket and Chain
B—Adjustable Sheave
C—Reel Sheave
D—Idler Gear

E—Lower Roll Drive Gear
F—Upper Roll Drive Gear
G—Cutterbar Drive Gear Case

H—Slip Clutch; with Drive Gear
I—Main Drive Gear Case

J—Rear Driveline
K—Drive Shaft
L—PTO Hookup

The PTO driveline consists of a PTO hookup (L), a bearing-supported drive shaft (K) and a telescoping rear driveline (J).

Power from the tractor PTO is transferred through the PTO driveline to main drive gear case (I), and on to slip clutch (H). The slip clutch provides protection to the cutterbar and conditioner components.

From the slip clutch, power is transmitted to the rolls through external drive gears (D—F). A V-belt transmits the power to the cutterbar drive gear case (G).

The cutterbar drive gear case utilizes an eccentric shaft and yoke arrangement to transform power from a rotary motion to a reciprocating motion, causing the cutterbar knife to move back and forth. The gear case is fully enclosed with the internal components lubricated with gear oil.

Power is transferred to the right side of platform through the upper conditioner roll. Power is then transmitted through a sprocket and chain arrangement (A). Attached to the driven sprocket is an adjustable sheave (B). From the adjustable sheave, a V-belt transfers power to reel sheave (C), which drives the reel.

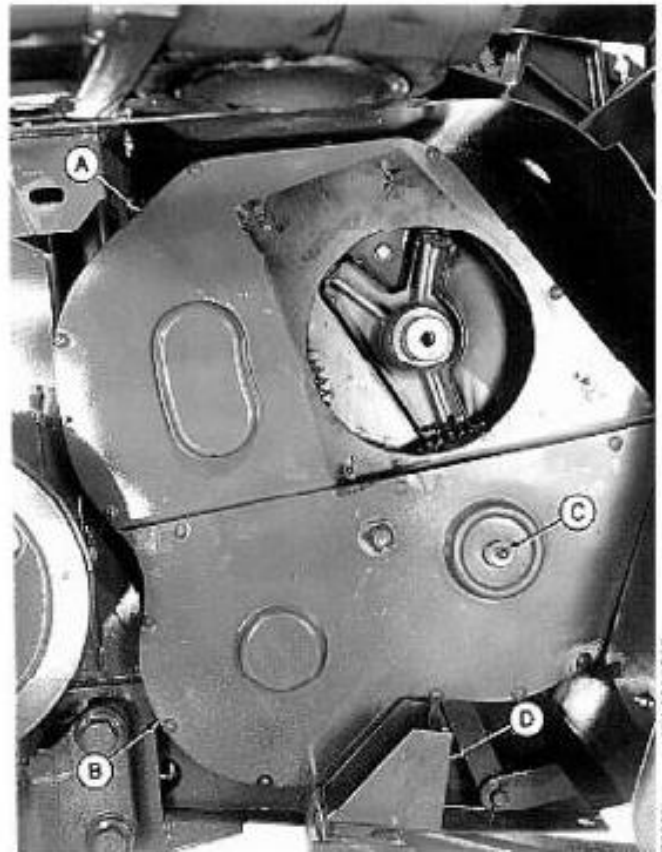
Because sheave (B) is adjustable, reel speed can be varied. Adding shims between the sheave halves decreases the reel speed, while removing shims increases reel speed.

An optional 16 tooth drive sprocket is available for reel speed faster than what the adjustable sheave can adjust to.

EX. 1619.2005.A -19-13NOV95

3. Remove bracket (D).
4. Remove lubrication fitting (C).
5. Remove covers (A and B).

A—Upper Enclosure Cover
 B—Lower Enclosure Cover
 C—Lubrication Fitting
 D—Bracket



EX.1619.5015.D -19-13NOV95

NOTE: Record quantity of shims and location used to aid in assembly.

6. Remove snap ring (B) and shim(s) (A).

IMPORTANT: When removing the idler gear, the gear seals will catch the edge of the snap ring groove in the idler gear shaft, causing the lip seal spring of the outboard seal to dislodge and become wedged between the shaft and inner race of the outer bearing. Use a protective sleeve on the shaft or damage to the snap ring groove and surface of shaft may result.

7. Remove idler gear (C).

8. Check idler gear teeth for excessive wear. Replace idler gear if necessary.



EX.1619.5015.P -19-13NOV95



Thank you very much
for your reading.
Please click here
to get more information.