Model D50 and D60
Harvest Header®
for Self-Propelled Windrowers

UNLOADING and
ASSEMBLY INSTRUCTIONS
for
NORTH AMERICAN SHIPMENTS

Published: October 2010
INTRODUCTION

This instructional manual describes the unloading, set-up and pre-delivery requirements for the MacDon D50 and D60 Harvest Headers for MacDon M Series Self-Propelled Windrowers.

Use the Table of Contents to guide you to specific areas.

Retain this manual for future reference.

CAREFULLY READ ALL THE MATERIAL PROVIDED BEFORE ATTEMPTING TO UNLOAD, ASSEMBLE, OR USE THE MACHINE.
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GENERAL SAFETY

CAUTION

The following are general farm safety precautions that should be part of your operating procedure for all types of machinery.

Protect yourself:

- When assembling, operating and servicing machinery, wear all the protective clothing and personal safety devices that COULD be necessary for the job at hand. Don't take chances.

- You may need:
  - a hard hat.
  - protective shoes with slip resistant soles.
  - protective glasses or goggles.
  - heavy gloves.
  - wet weather gear.
  - respirator or filter mask.
  - hearing protection. Be aware that prolonged exposure to loud noise can cause impairment or loss of hearing. Wearing a suitable hearing protective device such as ear muffs (A) or ear plugs (B) protects against objectionable or loud noises.

- Be aware that accidents often happen when the operator is tired or in a hurry to get finished. Take the time to consider the safest way. Never ignore warning signs of fatigue.

- Provide a first-aid kit for use in case of emergencies.

- Keep a fire extinguisher on the machine. Be sure the extinguisher is properly maintained and be familiar with its proper use.

- Wear close-fitting clothing and cover long hair. Never wear dangling items such as scarves or bracelets.

- Keep hands, feet, clothing and hair away from moving parts. Never attempt to clear obstructions or objects from a machine while the engine is running.

- Keep all shields in place. Never alter or remove safety equipment. Make sure driveline guards can rotate independently of the shaft and can telescope freely.

(continued next page)
• Use only service and repair parts made or approved by the equipment manufacturer. Substituted parts may not meet strength, design, or safety requirements.

• Do not modify the machine. Unauthorized modifications may impair the function and/or safety and affect machine life.

• Stop engine, and remove key from ignition before leaving operator's seat for any reason. A child or even a pet could engage an idling machine.

• Keep the area used for servicing machinery clean and dry. Wet or oily floors are slippery.

• Wet spots can be dangerous when working with electrical equipment. Be sure all electrical outlets and tools are properly grounded.

• Use adequate light for the job at hand.

• Keep machinery clean. Do not allow oil or grease to accumulate on service platforms, ladders or controls. Clean machines before storage.

• Never use gasoline, naphtha or any volatile material for cleaning purposes. These materials may be toxic and/or flammable.

• When storing machinery, cover sharp or extending components to prevent injury from accidental contact.
RECOMMENDED TORQUES

A. GENERAL

The tables shown below give correct torque values for various bolts and capscrews.

- Tighten all bolts to the torques specified in chart, unless otherwise noted throughout this manual.
- Check tightness of bolts periodically, using bolt torque chart as a guide.
- Replace hardware with the same strength bolt.
- Torque figures are valid for non-greased or non-oiled threads and heads unless otherwise specified. Do not grease or oil bolts or capscrews unless specified in this manual.
- When using locking elements, increase torque values by 5%.

B. SAE BOLTS

<table>
<thead>
<tr>
<th>BOLT DIA. &quot;A&quot;</th>
<th>NC BOLT TORQUE*</th>
<th>SAE-5</th>
<th>SAE-8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ft-lbf</td>
<td>N-m</td>
<td>ft-lbf</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>9</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>5/16&quot;</td>
<td>18</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>32</td>
<td>43</td>
<td>41</td>
</tr>
<tr>
<td>7/16&quot;</td>
<td>50</td>
<td>68</td>
<td>70</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>75</td>
<td>102</td>
<td>105</td>
</tr>
<tr>
<td>9/16&quot;</td>
<td>110</td>
<td>149</td>
<td>149</td>
</tr>
<tr>
<td>5/8&quot;</td>
<td>150</td>
<td>203</td>
<td>200</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>265</td>
<td>359</td>
<td>365</td>
</tr>
<tr>
<td>7/8&quot;</td>
<td>420</td>
<td>569</td>
<td>600</td>
</tr>
<tr>
<td>1&quot;</td>
<td>640</td>
<td>867</td>
<td>890</td>
</tr>
</tbody>
</table>

C. METRIC BOLTS

<table>
<thead>
<tr>
<th>BOLT DIA. &quot;A&quot;</th>
<th>STD COARSE BOLT TORQUE*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>ft-lbf</td>
</tr>
<tr>
<td>M3</td>
<td>0.4</td>
</tr>
<tr>
<td>M4</td>
<td>2.2</td>
</tr>
<tr>
<td>M5</td>
<td>4</td>
</tr>
<tr>
<td>M6</td>
<td>7</td>
</tr>
<tr>
<td>M8</td>
<td>18</td>
</tr>
<tr>
<td>M10</td>
<td>37</td>
</tr>
<tr>
<td>M12</td>
<td>66</td>
</tr>
<tr>
<td>M14</td>
<td>103</td>
</tr>
<tr>
<td>M16</td>
<td>166</td>
</tr>
<tr>
<td>M20</td>
<td>321</td>
</tr>
<tr>
<td>M24</td>
<td>553</td>
</tr>
<tr>
<td>M30</td>
<td>1103</td>
</tr>
<tr>
<td>M36</td>
<td>1917</td>
</tr>
</tbody>
</table>

* Torque categories for bolts and capscrews are identified by their head markings.
D. HYDRAULIC FITTINGS

FLARE TYPE

a. Check flare and flare seat for defects that might cause leakage.
b. Align tube with fitting before tightening.
c. Lubricate connection, and hand-tighten swivel nut until snug.
d. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.

<table>
<thead>
<tr>
<th>SAE NO.</th>
<th>TUBE SIZE O.D. (in.)</th>
<th>THD SIZE (in.)</th>
<th>NUT SIZE ACROSS FLATS (in.)</th>
<th>TORQUE VALUE*</th>
<th>RECOMMENDED TURNS TO TIGHTEN (AFTER FINGER TIGHTENING)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ft·lbf</td>
<td>N·m</td>
</tr>
<tr>
<td>3</td>
<td>3/16</td>
<td>3/8</td>
<td>7/16</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>1/4</td>
<td>7/16</td>
<td>9/16</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>5/16</td>
<td>1/2</td>
<td>5/8</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>3/8</td>
<td>9/16</td>
<td>11/16</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>8</td>
<td>1/2</td>
<td>3/4</td>
<td>7/8</td>
<td>34</td>
<td>46</td>
</tr>
<tr>
<td>10</td>
<td>5/8</td>
<td>7/8</td>
<td>1</td>
<td>46</td>
<td>62</td>
</tr>
<tr>
<td>12</td>
<td>3/4</td>
<td>1-1/16</td>
<td>1-1/4</td>
<td>75</td>
<td>102</td>
</tr>
<tr>
<td>14</td>
<td>7/8</td>
<td>1-3/8</td>
<td>1-3/8</td>
<td>90</td>
<td>122</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>1-5/16</td>
<td>1-1/2</td>
<td>105</td>
<td>142</td>
</tr>
</tbody>
</table>

* The torque values shown are based on lubricated connections as in re-assembly.

O-RING TYPE

a. Inspect O-ring and seat for dirt or obvious defects.
b. On angle fittings, back off the lock nut until washer (A) bottoms out at top of groove (B) in fitting.
c. Hand-tighten fitting until back-up washer (A) or washer face (if straight fitting) bottoms on part face (C), and O-ring is seated.
d. Position angle fittings by unscrewing no more than one turn.
e. Tighten straight fittings to torque shown.
f. Tighten angle fittings to torque shown in the following table while holding body of fitting with a wrench.

<table>
<thead>
<tr>
<th>SAE NO.</th>
<th>THD SIZE (in.)</th>
<th>NUT SIZE ACROSS FLATS (in.)</th>
<th>TORQUE VALUE*</th>
<th>RECOMMENDED TURNS TO TIGHTEN (AFTER FINGER TIGHTENING)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ft·lbf</td>
<td>N·m</td>
</tr>
<tr>
<td>3</td>
<td>3/8</td>
<td>1/2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>7/16</td>
<td>9/16</td>
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<td>12</td>
</tr>
<tr>
<td>5</td>
<td>1/2</td>
<td>5/8</td>
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<td>16</td>
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<td>6</td>
<td>9/16</td>
<td>11/16</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>8</td>
<td>3/4</td>
<td>7/8</td>
<td>34</td>
<td>46</td>
</tr>
<tr>
<td>10</td>
<td>7/8</td>
<td>1</td>
<td>46</td>
<td>62</td>
</tr>
<tr>
<td>12</td>
<td>1-1/16</td>
<td>1-1/4</td>
<td>75</td>
<td>102</td>
</tr>
<tr>
<td>14</td>
<td>1-3/16</td>
<td>1-3/8</td>
<td>90</td>
<td>122</td>
</tr>
<tr>
<td>16</td>
<td>1-5/16</td>
<td>1-1/2</td>
<td>105</td>
<td>142</td>
</tr>
<tr>
<td>20</td>
<td>1-5/8</td>
<td>1-7/8</td>
<td>140</td>
<td>190</td>
</tr>
<tr>
<td>24</td>
<td>1-7/8</td>
<td>2-1/8</td>
<td>160</td>
<td>217</td>
</tr>
</tbody>
</table>

* The torque values shown are based on lubricated connections as in re-assembly.
## ENGLISH/METRIC EQUIVALENTS

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>INCH-POUND UNITS</th>
<th>SI UNITS (METRIC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UNIT NAME</td>
<td>ABBR.</td>
</tr>
<tr>
<td>Area</td>
<td>acres</td>
<td>acres</td>
</tr>
<tr>
<td>Flow</td>
<td>US gallons per minute</td>
<td>gpm</td>
</tr>
<tr>
<td>Force</td>
<td>pounds force</td>
<td>lbf</td>
</tr>
<tr>
<td>Length</td>
<td>inch</td>
<td>in.</td>
</tr>
<tr>
<td></td>
<td>foot</td>
<td>ft</td>
</tr>
<tr>
<td>Power</td>
<td>horsepower</td>
<td>hp</td>
</tr>
<tr>
<td>Pressure</td>
<td>pounds per square inch</td>
<td>psi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Torque</td>
<td>pound feet or foot pounds</td>
<td>lbf-ft or ft-lbf</td>
</tr>
<tr>
<td></td>
<td>pound inches or inch pounds</td>
<td>lbf-in. or in-lbf</td>
</tr>
<tr>
<td>Temperature</td>
<td>degrees Fahrenheit</td>
<td>°F</td>
</tr>
<tr>
<td>Velocity</td>
<td>feet per minute</td>
<td>ft/min</td>
</tr>
<tr>
<td></td>
<td>feet per second</td>
<td>ft/s</td>
</tr>
<tr>
<td></td>
<td>miles per hour</td>
<td>mph</td>
</tr>
<tr>
<td>Volume</td>
<td>US gallons</td>
<td>US gal.</td>
</tr>
<tr>
<td></td>
<td>ounces</td>
<td>oz.</td>
</tr>
<tr>
<td></td>
<td>cubic inches</td>
<td>in.³</td>
</tr>
<tr>
<td>Weight</td>
<td>pounds</td>
<td>lb</td>
</tr>
</tbody>
</table>
STEP 1. UNLOAD HEADER

CAUTION

To avoid injury to bystanders from being struck by machinery, do not allow persons to stand in unloading area.

CAUTION

Equipment used for unloading must meet or exceed the requirements specified below. Using inadequate equipment may result in chain breakage, vehicle tipping or machine damage.

<table>
<thead>
<tr>
<th>LIFTING VEHICLE</th>
<th>HEADER SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15 - 25 FT.</td>
</tr>
<tr>
<td>Minimum Capacity</td>
<td>5000 lb (2270 kg)</td>
</tr>
<tr>
<td>Minimum Fork Length</td>
<td>78 in. (1981 mm)</td>
</tr>
</tbody>
</table>

* At 48 in. (1220 mm) from back end of forks.

IMPORTANT

Forklifts are normally rated for a load located 24 inches (610 mm) from “back end” of the forks. To obtain the forklift capacity at 48 inches (1220 mm), check with your forklift distributor.

a. Move trailer into position, and block trailer wheels.
b. Lower trailer storage stands.

c. Approach the header, and slide forks (A) underneath shipping support (B) of header as far as possible without contacting the shipping support (C) of opposite header.
d. Remove hauler's tie down straps and chains.

CAUTION

Ensure that forks extend beyond the inner support prior to lifting the header. If the forks do not lift at the supports, damage to the header may occur.

CAUTION

Avoid lifting the second header, and ensure the forks do not interfere with the shipping frame. If the forks contact the second header, damage to the headers may occur.

c. Slowly raise windrower off deck.
e. Back up until unit clears trailer, and slowly lower to 6 in. (150 mm) from ground.
fg. Take machine to storage or set-up area.
h. Repeat above steps for second header.
i. Check for shipping damage and missing parts.

WARNING

Be sure forks are secure before moving away from load. Stand clear when lifting.
STEP 2. LOWER HEADER

Re-position header as follows in preparation for assembly and set-up:

A. SINGLE REEL HEADERS

a. Choose an area with level ground.

b. Approach header from its “underside”, and place forks under top of shipping frame.

c. Attach a chain at each end of frame, and secure other end to lifting vehicle.

CAUTION

Stand clear when lowering, as machine may swing.

d. Back up SLOWLY while lowering forks until header is just above the ground. See illustration.

e. Place 6 in. (150 mm) blocks under each end and center of cutterbar, and lower header onto blocks.

f. Remove chain, and move lifting vehicle to rear of header.

g. Attach chain to center-link anchor on frame tube, and raise rear of header so that stand can be lowered.

h. Lower header stand by pulling pin, lowering stand, and releasing pin to secure stand.

i. Lower header onto stand.

NOTE

If ground is soft, place a block under the stand.
**UNLOADING AND ASSEMBLY**

**B. DOUBLE REEL HEADERS - D60 ONLY**

Re-position header as follows in preparation for assembly and set-up:

a. Choose an area with level ground.

b. Drive lifting vehicle to approach header from its "underside".

**IMPORTANT**

Do not lift header at this location. This procedure is only for laying the machine over into working position.

c. Attach chain to shipping support at center reel arm.

**CAUTION**

Stand clear when lowering, as machine may swing.

d. Back up SLOWLY while lowering forks until header is just above the ground.

e. Place 6 in. (150 mm) blocks under each end and center of cutterbar, and lower header onto blocks.

f. Remove chain, and move lifting vehicle to rear of header.

g. Attach chain to center-link anchor on frame tube, and raise rear of header so that stand can be lowered.

h. Lower header stand by pulling pin, lowering stand, and releasing pin to secure stand.

i. Lower header onto stand.

**NOTE**

If ground is soft, place a block under the stand.
STEP 3. REMOVE SHIPPING SUPPORTS

The removable supports are painted yellow.

NOTE
Unless otherwise specified, discard supports, and all shipping material and hardware.

a. Cut straps, and remove header boots from shipping support. Set boots aside for later installation.

b. Remove six bolts securing lower support to header legs, and remove support.

c. Remove four bolts securing upper support to header legs, and remove support.

d. Remove the two bolts on each center leg shipping support, and remove stands.

e. If outer leg shipping supports are installed, remove as follows:

1. Remove the two bolts attaching the stand to the leg under the header.
2. Remove pin at top of stand, and remove stand.

(continued next page)
f. Cut banding securing reel to cutterbar and backtube (SINGLE REEL ONLY).

g. Cut banding, and remove plastic endshields from backsheet.

h. Remove reel anti-rotation brace between reel and endsheet.
STEP 4. ATTACH REEL LIFT CYLINDERS

CAUTION
Braces On Reel Arms Keep Reel From Sliding Forward. Do Not Remove.

a. Remove top bolt on outboard reel arm supports.

b. Remove two top bolts on center reel arm support. (DOUBLE REEL ONLY).

c. Position sling around the reel tube close to outboard end of reel, and attach sling to a forklift (or equivalent).

d. Remove shipping wire/banding from cylinder, and remove pins from lug and arm.

e. Lift reel so that reel lift cylinder mounting holes line up with lug on endsheet and hole in reel arm. (continued next page)
f. Secure cylinder to endsheet and reel arm with pins as shown. Note orientation of pins. Secure with cotter pins.

g. Remove sling, and re-position around reel tube near reel center support arm. (DOUBLE REEL ONLY).

h. Lift reel so that reel center lift cylinder mounting holes line up with bracket on frame. (DOUBLE REEL ONLY).

i. Remove shipping wire/banding from cylinder, and remove pin from frame. (DOUBLE REEL ONLY).

j. Attach cylinder to frame with pin as shown. Secure with cotter pin. (DOUBLE REEL ONLY).

k. Remove sling, and re-position around reel tube near opposite outboard reel arm.

l. Remove shipping wire/banding from cylinder, and remove pins from lug and arm.

m. Lift reel so that reel lift cylinder mounting holes line up with lug on endsheet and hole in reel arm.

n. Secure cylinder to endsheet and reel arm with pins as shown. Note orientation of pins. Secure with cotter pins.

o. Remove shipping wire from center arm hose bundle, and remove bolt and nut from hose clip. (DOUBLE REEL ONLY).

(continued next page)
p. Re-install bolt with hose clip through upper hole in reel prop. (DOUBLE REEL ONLY).

q. Hold support, and remove two bolts at base of center reel arm shipping support so that plate drops free. (DOUBLE REEL).

r. Slide lower support off cutterbar.

s. Remove the two reel arm supports from endsheets.

---

**CAUTION**

Braces On Reel Arms Keep Reel From Sliding Forward. Do Not Remove.
STEP 5. ATTACH TO WINDROWER

IMPORTANT
To prevent damage to the lift system when lowering header lift linkages without a header or weight box attached to windrower, ensure that float engagement pin is installed in storage location (A), and not installed at hole location (B).

a. If not installed, attach draper header boots (supplied with header) to windrower lift linkage as follows:

DANGER
Stop engine, and remove key from ignition before leaving operator's seat for any reason. A child or even a pet could engage an idling machine.

1. Remove pin (C) from boot (D).

2. Locate boot (D) on lift linkage (E), and reinstall pin (C). Pin may be installed from either side of boot.
3. Secure pin (C) with hairpin.
4. Repeat for opposite lift linkage.

b. Remove hairpin on pins (F), and remove pins from header legs.

(continued next page)
CAUTION

Check to be sure all bystanders have cleared the area.

c. Start the engine, and activate HEADER DOWN switch on the GSL to fully retract header lift cylinders.

d. Slowly drive windrower forward so that boots (D) enter header legs (G). Continue to drive slowly forward until linkages contact support plates in the lower header legs, and header nudges forward.

e. Check that linkages are properly engaged in header legs, contacting support plates.
STEP 6. CONNECT CENTER-LINK

a. Proceed to appropriate section to connect the center-link.

MECHANICAL LINK - M100, M150

DANGER

Stop engine, and remove key from ignition before leaving operator’s seat for any reason. A child or even a pet could engage an idling machine.

1. Stop engine, and remove key.

2. Loosen nut (A), and rotate barrel (B) to adjust length so that link lines up with header bracket.
3. Install pin (C), and secure with cotter pin.
4. Adjust link to required length for proper header angle by rotating barrel (B). Tighten nut (A) against barrel. A slight tap with a hammer is sufficient.
5. Start engine, and proceed to next page, step b.

HYDRAULIC LINK WITHOUT SELF-ALIGNMENT KIT - M200 STD, M150 OPTION

1. Stop engine, and remove key.

2. Re-locate the pin at the frame linkage as required to position the hook over the header pin (shown at bottom of previous column)

CAUTION

Check to be sure all bystanders have cleared the area.

3. Start engine, and activate HEADER TILT switches on GSL to extend or retract center link cylinder, so that the hook lines up with the header attachment pin.
4. Stop engine.

5. Push down on rod end of link cylinder (D) until hook engages pin on header, and is locked.
6. Check that center-link is locked onto header by pulling upward on rod end of cylinder.
7. Start engine, and proceed to next page, step b.

(continued next page)
1. Adjust the position of the center-link cylinder with the REEL UP, REEL DOWN, and HEADER TILT switches on the GSL to position the hook above the header attachment pin.

2. Lower the center-link onto the header with REEL DOWN switch until it locks into position (handle is down).
   a. Raise the header fully with the HEADER UP switch on the GSL. Stop engine, and remove key.
   b. Engage the header fully with the HEADER UP switch on the GSL. Stop engine, and remove key.
   c. Engage lift cylinder stops on both lift cylinders.
   d. Install pin (E) through header leg, (engaging U-bracket in header leg) on both sides.
   e. Raise header stand (F) to storage position by pulling pin (G), and lifting stand into "uppermost" position. Release pin (G).
   f. Remove pin from storage position (H) in linkages on both sides, and insert in hole (J) to engage float springs. Secure with hairpin.
   g. Disengage lift cylinder stops.

**DANGER**

To avoid bodily injury from fall of raised header, always engage header lift cylinder stops when working on or around raised header.

**CAUTION**

Check to be sure all bystanders have cleared the area.

h. Start engine, and activate HEADER DOWN switch on GSL to lower header fully.

**DANGER**

Stop engine, and remove key from ignition before leaving operator's seat for any reason. A child or even a pet could engage an idling machine.

i. Stop engine, and remove key.
STEP 7. CONNECT HYDRAULICS

M150, M200 and M205 Windrowers may not be factory equipped with D Series header and reel hydraulics as shown below. If not, proceed to step a. to install optional drive/lift kits. If already equipped, go to step b.

NOTE

Windrowers equipped with D-Series hydraulics have four header drive hoses on the LH side, and up to five reel drive hoses on the RH side.

a. If required, configure the M150, M200 or M205 to run a D-Series draper header by installing optional drive/lift kits. See table below for appropriate kit(s). The kits include all necessary hardware and installation instructions, and should have been provided with the windrower shipment.

<table>
<thead>
<tr>
<th>Windrower</th>
<th>Optional Drive / Lift Kits</th>
</tr>
</thead>
<tbody>
<tr>
<td>M150</td>
<td>B5426</td>
</tr>
<tr>
<td>M200</td>
<td>B5426 and B4651</td>
</tr>
<tr>
<td>M205</td>
<td>B5491, B5496, B5497</td>
</tr>
</tbody>
</table>

b. Connect header drive hydraulics (A), and electrical harness (B) to header as follows:
   1. Check connectors, and clean if required.
   2. Disengage, and rotate lever (C) counter clockwise to “fully up” position.
   3. Remove cap securing electrical connector (B) to frame.
   4. Move hose bundle (A) from windrower around hose support on header.
   5. Push hose connectors onto mating receptacle until collar on receptacle snaps into lock position.
   6. Remove cover on electrical receptacle.
   7. Push electrical connector onto receptacle, and turn collar on connector to lock it in place.
   8. Attach cover to mating cover on windrower wiring harness.

(continued next page)
9. Lower lever (C), and engage in “down” position.

c. Check that hose support is positioned so that top bolt is “midway” in slot, and lower bolt is in forward hole. Loosen bolts, and adjust as required.

d. Connect reel hydraulics (D) as follows:

1. Check connectors, and clean if required.

2. Open cover (E) on header receptacle.
3. Push in lock button (F), and pull handle (G) to “half open” position.

4. Remove hose bundle with multi-coupler (D) from windrower, position onto header receptacle.
5. Push handle (G) to engage pins on connector.
6. Push handle away from hoses until lock button (F) snaps out.

CAUTION
Check to be sure all bystanders have cleared the area.

e. Start engine, and raise and lower header and reel a few times to allow trapped air to pass back to the reservoir.

f. Stop engine.

NOTE
It is not necessary to bleed the system by loosening fittings.
STEP 8. CONNECT REEL TO FORE-AFT CYLINDERS

A. D60

**CAUTION**

The reel hydraulic cylinders must be connected to the reel prior to removing the supports. Failure to do so may result in the reel sliding full forward when the supports are removed.

**CAUTION**

Be sure all bystanders are clear of machine before starting engine or engaging any header drives.

a. Remove shipping wire and pins from reel fore-aft cylinders on each reel support arm. Pin may be installed in arm.

b. Start windrower, and level the reel arms with the windrower hydraulics.

c. Extend and retract cylinders to re-phase cylinders.

d. Align cylinders with reel arm mounting holes with windrower hydraulics. Stop engine, and remove key.

e. Attach cylinders to reel arms with clevis pins, washers, and cotter pins.

f. Remove shipping braces on reel arms.
B. D50

CAUTION

The reel hydraulic cylinders must be connected to the reel prior to removing the stops. Failure to do so may result in the reel sliding full forward when the stops are removed.

CAUTION

Be sure all bystanders are clear of machine before starting engine or engaging any header drives.

a. Remove shipping wire and pins from reel fore-aft cylinders on reel arms. Pin may be installed in arm.

b. Start windrower, and level the reel arms with the windrower hydraulics.

c. Extend and retract cylinders to re-phase cylinders.

d. Align cylinders with reel arm mounting holes with windrower hydraulics. Stop engine, and remove key.

e. Attach cylinders to reel arms with clevis pins, washers, and cotter pins.

f. Remove stops (bolts) from support arms.
STEP 9. ATTACH CAM ARMS

a. Manually rotate reel until the tine bars with the disconnected cam links are accessible.

b. Remove shipping wire, if not already removed.

c. Remove bag of hardware from tine bar. It contains hardware for cam links and endshields.

d. Rotate tine bar crank (A), and position link (B) until attachment holes in bar crank and link are approximately aligned.

e. Install bolt (C) in link, and position shim (D) (5/8” ID lockwasher on D50) on bolt so that shim is between link and tine bar crank.

**NOTE**
*Bolts are pre-coated with Loctite® so no further locking method is required.*

f. Re-align link and tine bar crank, and thread in the bolt (C).

g. Repeat for remaining tine bars, and torque bolts to 120 ft·lbf (165 N·m).
STEP 10. INSTALL REEL ENDSHEILDs

Up to three endshields on each end of some reels were removed for shipping purposes. If necessary, re-install shields as follows.

a. Manually rotate reel until the wired endshields are accessible. Remove endshields.

b. Manually rotate reel for accessibility to re-install the shields.

c. Loosen bolts securing endshield supports to disc, and rotate supports approximately as shown.

d. Retrieve hardware from bag removed in previous step.

e. Install endshields with lip in relation to reel rotation. Use 3/8” x 0.5 long TORX head screws, and torque to 20 ft·lb (27 N·m). See above for hardware orientation. The jam-nuts must be locking jam-nuts. If they are not locking nuts, use Loctite® #243 (or equivalent).

f. Re-tighten endshield support bolts, if necessary.
STEP 11. INSTALL CROP DIVIDERS

A. D60

a. At divider storage location, remove shipping wire from crop divider.

b. Lift divider to disengage lugs (A) at lower end, and then lower it slightly to disengage pin (B) from endsheet.

c. Position crop divider as shown by locating lugs (A) in holes in endsheet.

d. Lift forward end of divider until pin (C) at top of divider engages, and closes latch (D).

e. Push safety lever (E) down to lock pin in latch.

f. Check that divider does not move laterally. Adjust bolts (F) as required to tighten divider, and remove lateral play when pulling at divider tip.

g. Remove divider rods from shipping location on header endsheet.

h. Position divider rod (G) on tip of crop divider as shown, and tighten bolt (H).

i. Repeat above steps for other end of header.
**UNLOADING AND ASSEMBLY**

**B. D50**

- **a.** Remove bolt (A), and washer securing crop divider to endsheet.

- **b.** Lift divider to disengage lugs (B) at lower end.

- **c.** Position crop divider as shown by locating lugs (B) in holes in endsheet forward end, and lift forward end of divider to face of endsheet.

- **d.** Install bolt (A), lock-washer, and flat washer. Tighten bolt.

- **e.** Check that divider does **not** move laterally. Adjust bolts (C) as required to tighten divider and remove lateral play when pulling at divider tip.

- **f.** Remove divider rods from shipping location on header endsheet.

- **g.** Position divider rod (D) on tip of crop divider as shown, and tighten bolt (E).

- **h.** Repeat above steps for other end of header.
UNLOADING AND ASSEMBLY

STEP 12. INSTALL HEADER ENDSHEIELDS

Single knife headers are fitted with a hinged endshield on the LH end of the header for easy access to the header drive. The RH end is not hinged, but is still removable.

Double knife headers are fitted with hinged endshields on both ends of the header.

A. HINGED ENDSHEILD

a. Remove shipping wire from endshield support (A), and swivel support away from endsheet toward the back of the header until it latches (B).

b. Retrieve plastic endshields.

c. Remove screw (C) at top of support.

d. Install endshield (D) onto support tube, and re-install screw (C).

e. To close shield, lift latch (B), and swing the shield forward until the front engages the crop divider (E).

f. Push in shield where shown (opposite latch) and shield will self-latch.

NOTE

Plastic endshields are subject to expansion or contraction depending on large temperature variations. Latch pin can be adjusted to compensate for dimensional changes.

g. The endshield should fit snugly onto the endsheet. Check gap ‘X’ between the front end of the shield and the header frame, and compare the measurement with values in chart.

<table>
<thead>
<tr>
<th>TEMPERATURE Degrees °F (°C)</th>
<th>GAP ‘X’ in. (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 (-4)</td>
<td>1.1 (28)</td>
</tr>
<tr>
<td>45 (7)</td>
<td>1.0 (24)</td>
</tr>
<tr>
<td>65 (18)</td>
<td>0.79 (20)</td>
</tr>
<tr>
<td>85 (29)</td>
<td>0.64 (16)</td>
</tr>
<tr>
<td>105 (41)</td>
<td>0.5 (12)</td>
</tr>
<tr>
<td>125 (52)</td>
<td>0.32 (8)</td>
</tr>
<tr>
<td>145 (63)</td>
<td>0.16 (4)</td>
</tr>
<tr>
<td>165 (89)</td>
<td>0</td>
</tr>
</tbody>
</table>

(continued next page)
UNLOADING AND ASSEMBLY

h. If required, adjust as follows:

1. Open endshield by pressing against latch in opening at (D) on inboard side of endsheet.

2. Pull shield away from header, and swing it out and back behind the endsheet until the latch (B) engages the hook on the endsheet.

3. Loosen bolts (E) on support.

4. Loosen bolts (F) on latch assembly (G).

5. Adjust latch assembly (G) to achieve appropriate gap *X* in chart (previous page).

6. Tighten bolts (E) and (F).

i. To achieve a snug fit between the aft end of the shield and header frame, loosen bolts (H) and adjust the latch assembly (J) to re-position the shield.

j. Loosen bolts (K) on endshield support, and adjust endshield to align with endsheet as shown above.

k. Tighten bolts (H) and (K).

l. Close endshield.
B. NON-HINGED ENDSHIELD

a. To install the non-hinged shield, locate forward end in crop divider (A), and position shield over endsheet. Pin (B) at top of endsheet must engage shield.

b. Push in shield where shown (opposite latch), and shield will self-latch.

NOTE
Plastic endshields are subject to expansion or contraction depending on large temperature variations. Latch pin can be adjusted to compensate for dimensional changes.

c. The endshield should fit snugly onto the endsheet. Check gap ‘X’ between the front end of the shield and the header frame. Compare the measurement with the values in the next chart.

<table>
<thead>
<tr>
<th>TEMPERATURE Degrees °F (°C)</th>
<th>GAP ‘X’ in. (mm)</th>
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<tbody>
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</tr>
<tr>
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</tr>
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</tr>
<tr>
<td>85 (29)</td>
<td>0.64 (16)</td>
</tr>
<tr>
<td>105 (41)</td>
<td>0.5 (12)</td>
</tr>
<tr>
<td>125 (52)</td>
<td>0.32 (8)</td>
</tr>
<tr>
<td>145 (63)</td>
<td>0.16 (4)</td>
</tr>
<tr>
<td>165 (89)</td>
<td>0</td>
</tr>
</tbody>
</table>

d. If required, adjust as follows:
1. Remove the endshield by pressing against latch in opening at (C) on inboard side of endsheet.
2. Lift up on shield, pull out and then back to remove it.
3. Loosen bolts (D).
4. Adjust the pin assembly (E) to achieve the gap ‘X’ between the front end of the shield and the header frame in accordance with the chart at the top of this column.
5. Tighten bolts (D).

(continued next page)
STEP 14. INSTALL OPTIONS

Optional attachments and kits may have been supplied with the header. They include all necessary hardware and installation instructions.

e. To achieve a snug fit between the aft end of the shield and header frame, loosen bolts (F), and adjust the latch (G) to re-position the shield.

f. Tighten bolts (F).

STEP 13. ADJUST TRANSPORT LIGHTS

a. Position light perpendicular to header. Lights are located on each of the outboard reel arms.
STEP 15. ADD BALLAST

Fluid ballasting of rear caster tires on M Series Windrowsers is recommended to provide adequate machine stability when using large headers on the windrower.

Also, the stability of machine varies with different attachments, windrower options, terrain and the Operator’s driving technique.

Ballast capability per tire is at a maximum fill of 75%, or when fluid is level with valve stem when the stem is positioned at “12 o’clock”.

Fluid can be added to any level up to maximum fill, and always add an equal amount of fluid on both sides.

<table>
<thead>
<tr>
<th>TIRE SIZE</th>
<th>FLUID PER TIRE AT 75% FILL</th>
<th>TOTAL WEIGHT OF BOTH TIRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.5 X 16</td>
<td>10 (38)</td>
<td>200 (91)</td>
</tr>
<tr>
<td>10 X 16</td>
<td>18 (69)</td>
<td>380 (170)</td>
</tr>
<tr>
<td>16.5 X 16.1</td>
<td>41 (158)</td>
<td>830 (377)</td>
</tr>
</tbody>
</table>

* Weights are given for typical calcium chloride and water mixtures. Weight is reduced by 20% if only water is used (for areas that do not require antifreeze protection).

<table>
<thead>
<tr>
<th>HEADER SIZE</th>
<th>RECOMMENDED BALLAST</th>
<th>APPLICABLE WINDROWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL GROUND</td>
<td>HILLS</td>
<td></td>
</tr>
<tr>
<td>PER TIRE</td>
<td>BOTH TIRES</td>
<td>PER TIRE</td>
</tr>
<tr>
<td>U.S. Gal. (Liters)</td>
<td>lb (kg) *</td>
<td>U.S. Gal. (Liters)</td>
</tr>
<tr>
<td>25 FT. and Down.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30 FT. Single or Split Reel without Conditioner.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>35’ Single Reel.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 FT. Split Reel. Steel Fingers and Conditioner.</td>
<td>18 (69)</td>
<td>380 (170)</td>
</tr>
<tr>
<td>35’ Split Reel (5 or 6 Bat).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 FT.</td>
<td>30 (115)</td>
<td>630 (288)</td>
</tr>
</tbody>
</table>

* If only water is used, increase volume of water by 20% (up to maximum allowable fill per tire) to compensate.
STEP 16. PRE-DELIVERY INSPECTION

IMPORTANT
To avoid machine damage, check that no shipping dunnage has fallen into machine.

Perform the final checks as listed on the "Pre-Delivery Checklist" (yellow sheet attached to this instruction) to ensure the machine is field-ready.

Refer to the following pages for detailed instructions as indicated on the checklist.

IMPORTANT
The machine has been set at the factory, and should require no further adjustments.

However, perform the following checks to ensure your machine will provide maximum performance. Adjustments should be made only if absolutely necessary, and in accordance with the instructions in this manual.

The completed checklist should be retained either by the Operator or the Dealer.

A. TIRE PRESSURE (TRANSPORT AND STABILIZER WHEEL OPTIONS)
Check tire inflation pressure.
If necessary, inflate as per following table.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TIRE</th>
<th>SIZE</th>
<th>PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 and EARLIER</td>
<td>GOODYEAR WRANGLER RT/S</td>
<td>205-75 R15</td>
<td>40 psi (276 kPa)</td>
</tr>
<tr>
<td>2007 and LATER</td>
<td>CARLISLE and TITAN</td>
<td>ST205/75 R15</td>
<td>65 psi (448 kPa)</td>
</tr>
</tbody>
</table>

IMPORTANT
Do not exceed maximum pressure specified on tire side wall.

B. WHEEL BOLT TORQUE (TRANSPORT AND STABILIZER WHEEL OPTIONS)
Check wheel bolt torque is 80 - 90 ft-lbf (110 - 120 N·m).

Refer to bolt tightening sequence illustration above.

C. WOBBLE BOX
a. Position of plug (A) and breather (B) at wobble box must be as shown.
b. Check oil level.

(continued next page)
D. SICKLE DRIVE BELT TENSION

IMPORTANT
To prolong belt and drive life, do not over-tighten belt.

I. NON-TIMED DRIVE - SK and DK
a. Open endshield.

b. A force of 20 lbf (80 N) should deflect belt (A) 3/4 in. (18 mm) at mid-span.

c. Only if necessary, adjust tension as follows:
   1. Loosen two bolts (B) on sickle drive mounting bracket, and jam-nut (C).
   2. Turn adjuster bolt (D) to move drive motor until tension is achieved.
   3. Tighten jam-nut (C), and bolts (B) on drive mounting bracket.

d. Close endshield.

II. TIMED DRIVE - DK
a. Open endshield.

Timing Belts

b. A force of 6 lbf (27 N) should deflect timing belt (E) 1/2 in. (13 mm) at mid-span.

c. Only if necessary, adjust tension as follows:
   1. Loosen two nuts (F) on sickle drive belt idler bracket.
   2. Insert a long punch (or equivalent) into hole (G) in idler bracket, and pry downward until a force of 6 lbf (27 N) deflects timing belt 1/2 in. (13 mm) at mid-span (E).
   3. Tighten nuts (F) on idler mounting bracket.

(continued next page)
Double V-Belts - LH Side Only

a. A force of 12 lbf (53 N) should deflect V-belts (H) 1/8 in. (3 mm) at mid-span.
b. Only if necessary, adjust tension as follows:
   1. Loosen two bolts (J) on sickle drive mounting bracket.
   2. Loosen two bolts (K) on endsheet.
   3. Turn adjuster bolt (L) to move drive motor until a force of 12 lbf (53 N) deflects V-belts (H) 1/8 in. (3 mm) at mid-span.
   4. Tighten bolts (J) and (K).
c. Close endshield.

E. REEL CENTERING

WARNING
Stop windrower engine, and remove key before making adjustments to machine. A child or even a pet could engage the drive.

a. Measure clearance between reels and both endsheets. The clearances should be the same if the reels are centered.
b. If required, center the reels as follows:
   1. Loosen bolt (A) on each brace (B) located at each end of the reel.
   2. Move forward end of reel support arm (C) laterally as required to center reel.
   3. Tighten bolts (A), and torque to 265 ft·lbf (359 N·m).
**F. DRAPER TENSION**

The drapers are tensioned after installation at the factory, so should not require adjustment.

Draper tension should be just enough to prevent slipping, and keep draper from sagging below cutterbar. The white bar (A) (shown in the next column) should be about “halfway” in the window.


![Warning](image1)

**WARNING**

Stop windrower engine, and remove key before making adjustments to machine. A child or even a pet could engage the drive.

![Caution](image2)

**CAUTION**

Engage header lift cylinder stops before working under header.

b. Check that draper guide (rubber track on underside of draper) is properly engaged in groove of drive roller, and that idler roller is “between” the guides.

c. If required, set draper tension as follows:

![Diagram](image3)

1. Turn bolt (B) clockwise (tighten), and white indicator bar (A) will move inboard in direction of arrow to indicate that draper is tightening.

2. Turn bolt (B) counter clockwise (loosen), and white indicator bar (A) will move outboard in direction of arrow to indicate that draper is loosening.

3. Adjust until bar is about “halfway” in window.

**IMPORTANT**

To avoid premature failure of draper, draper rollers and/or tightener components, do not operate with tension set so that white bar is not visible.

Also to prevent the draper from scooping dirt, ensure draper is tight enough that it does not sag below point where cutterbar contacts the ground.
G. SKID SHOE SETTINGS

WARNING

Stop windrower engine, and remove key before making adjustments to machine. A child or even a pet could engage the drive.

CAUTION

Engage header lift cylinder stops before working under header.

H. HEADER LEVELLING

The windrower linkages are factory set to provide the proper level for the header, and should not normally require adjustment. The float springs are not used to level the header.

If the header is not level, check the tire pressures on the windrower ensuring they are properly inflated. Refer to your Self-Propelled Windrower Operator’s Manual.

If the header is still not level, then adjustment to the windrower linkages is required. Refer to the appropriate section in the Self-Propelled Windrower Operator’s Manual.

a. Note the hole positions on the adjuster legs (A) on each skid shoe. They should be the same.

b. If necessary, adjust as follows:

1. Remove lynch pin (B).
2. Hold shoe, and remove pin (C) by disengaging frame and then pulling away from shoe.
3. Raise or lower skid shoe to desired position using holes in support as a guide.
4. Re-insert pin (C), engage in frame, and secure with lynch pin (B).
5. Check that skid shoes are adjusted to the same position.
I. **REEL TINE TO CUTTERBAR CLEARANCE**

a. Adjust fore-aft reel position so that back end of cam disc is approximately between 4 and 5 on the arm decal.

b. Fully lower the reel.

c. Rotate reel manually to determine which finger is closest to cutterbar (within 12 in. (300 mm)) of endsheets.

d. Flex fingers back as shown to check clearance “X”. Refer to chart for allowable clearances.

<table>
<thead>
<tr>
<th>“X” +/- 0.12 in. (3 mm)</th>
<th>“X” +/- 0.12 in. (3 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Endsheets</td>
<td>At Sectors Next to Drive At Center Arm</td>
</tr>
<tr>
<td>0.78 in. (20 mm)</td>
<td>1.56 in. (40 mm)</td>
</tr>
</tbody>
</table>

e. If required, adjust outside reel arms as follows:

1. Loosen nut (A).
2. Turn cylinder rod (B) counter clockwise to raise reel and increase clearance to cutterbar, or clockwise to decrease.
3. Tighten nut (A).
4. Repeat at opposite side.

f. If applicable, adjust center arm as follows:

1. Loosen nut (C).
2. Turn nut (D) clockwise to raise reel and increase clearance to cutterbar, or counter clockwise to decrease.
3. Tighten bolt (C).
J. DRAPER SEAL

a. Check deck height so that draper (E) runs just below cutterbar (F) with maximum 1/32 in. (1 mm) gap, or with draper deflected down slightly (up to 1/16 in. (1.5 mm)) to create a seal.

**NOTE**
Measurement is at supports with header in working position and decks slid fully ahead.

b. Loosen tension on drapers. Refer to sub-step F. DRAPER TENSION.

c. Lift draper up at front edge past cutterbar.

d. Loosen two locknuts (G) a half-turn only on deck support (H). There are two to four supports per deck, depending on header size.

e. Tap deck (J) to lower deck relative to supports to achieve setting recommended above. Tap support (H) using a punch to raise deck relative to support.

f. Tighten deck support hardware (G).

g. Tension drapers. Refer to sub-step F. DRAPER TENSION.
K. LUBRICATE HEADER

Refer to the illustrations for lubrication points:

d. Replace any loose or broken fittings immediately.

e. If fitting will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

f. Use clean High Temperature Extreme Pressure grease.

---

High Temperature
Extreme Pressure (EP2)
Performance With
1% Max Molybdenum
Disulphide
(NLGI Grade 2) Lithium Base

D60

KNIFE DRIVE BEARING - DK
(BOTH SIDES)

KNIFE DRIVE SHAFT - DK
15 PUMPS MINIMUM
(BOTH SIDES)
PRE-DELIVERY INSPECTION

NOTE

U-joint has an extended lubrication cross and bearing kit. Stop greasing when greasing becomes difficult, or if U-joint stops taking grease. Over-greasing will damage U-joint. 6 to 8 pumps are sufficient at first grease (factory). Decrease grease interval as U-joint wears, and requires more than 6 pumps.

NOTE

To prevent binding and/or excessive wear caused by sickle pressing on guards, do not over-grease. If more than 6 to 8 pumps of the grease gun are required to fill the cavity, replace the seal in the sickle head.

(continued next page)
PRE-DELIVERY INSPECTION

High Temperature Extreme Pressure (EP2) Performance With 1% Max Molybdenum Disulphide (NLGI Grade 2) Lithium Base

NOTE
To prevent binding and/or excessive wear caused by sickle pressing on guards, do not over-grease. If more than 6 to 8 pumps of the grease gun are required to fill the cavity, replace the seal in the sickle head.
L. MANUALS

a. Open the left endshield, and remove plastic tie on manual case.

b. Check that case contains the following manuals:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>TYPE</th>
<th>FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>D50 and D60 Harvest Headers for Self-Propelled Windrows</td>
<td>Operator’s Manual</td>
<td>169441</td>
</tr>
<tr>
<td>D50 and D60 Harvest Header, FD70 FlexDraper Combine Header</td>
<td>Operator’s Manual</td>
<td>169006</td>
</tr>
<tr>
<td>D50/D60 Harvest Header, FD70 FlexDraper Combine Header</td>
<td>Parts Catalog</td>
<td>169008</td>
</tr>
<tr>
<td>CA20 Combine Adapter</td>
<td>Parts Catalog</td>
<td>169011</td>
</tr>
<tr>
<td>MacDon D50/D60/FD70</td>
<td>Quick Card</td>
<td>169234</td>
</tr>
<tr>
<td>MacDon D50/D60 SP Draper Header</td>
<td>Quick Card</td>
<td>169406</td>
</tr>
</tbody>
</table>

c. Close case and endshield.
RUN-UP ADJUSTMENTS AND CHECKS

STEP 17. RUN-UP THE HEADER

CAUTION
Never start or move the machine until you are sure all bystanders have cleared the area.

CAUTION
Clear the area of other persons, pets etc. Keep children away from machinery. Walk around the machine to be sure no one is under, on or close to it.

CAUTION
Before investigating an unusual sound or attempting to correct a problem, shut off engine, engage parking brake and remove key.

a. Open the LH endshield.
b. Start windrower, and run the header for 5 minutes, watching and listening FROM THE OPERATOR’S SEAT for binding or interfering parts.

NOTE
Reel and drapers will not operate until oil flow fills the lines.

c. Run the header for an additional 10 minutes at operating speed, watching and listening FROM THE OPERATOR’S SEAT for binding or interfering parts.

d. Have someone check the rpm of the wobble box pulley using a hand held tachometer.
e. Shutdown the windrower.

f. Compare actual pulley rpm with the values in the following chart:

<table>
<thead>
<tr>
<th>Header Size</th>
<th>Single Knife</th>
<th>Double Knife</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 FOOT</td>
<td>550 - 675</td>
<td>600 - 800</td>
</tr>
<tr>
<td>30 FOOT</td>
<td>550 - 650</td>
<td>600 - 725</td>
</tr>
<tr>
<td>35 FOOT</td>
<td>550 - 600</td>
<td>550 - 700</td>
</tr>
<tr>
<td>40 FOOT</td>
<td>525 - 600</td>
<td>550 - 650</td>
</tr>
</tbody>
</table>

g. If adjustment to the wobble box pulley rpm is necessary, refer to your Windrower Operator’s Manual.
h. Perform the run-up check as listed on the "Pre-Delivery Checklist" (yellow sheet attached to this instruction).
STEP 18. POST RUN-UP CHECKS

**WARNING**

Stop windrower engine, and remove key before making adjustments to machine. A child or even a pet could engage the drive.

a. Perform the post run-up check as listed on the "Pre-Delivery Checklist" (yellow sheet attached to this instruction).

**A. KNIFE**

a. Check guards for signs of heating during run-up due to insufficient clearance between guard and sickle.

b. If heating is evident, proceed as follows:

1. Check gap between knife head and pitman arm. A business card should slide easily through the gap. If not, then adjust gap by loosening bolt, and tapping knife head with a hammer. Re-tighten bolt.

2. Adjust guard alignment as follows. The guard straightening tool (MacDon #140135) is available from your MacDon Dealer.

   i. To adjust guard tips upward, position tool as shown, and pull “up”.

   ii. To adjust tips downward, position tool as shown, and push “down”.

   **UPWARD ADJUSTMENT**

   **DOWNWARD ADJUSTMENT**
MacDon Industries Ltd.
680 Moray Street
Winnipeg, Manitoba
Canada R3J 3S3
t. (204) 885-5590
f. (204) 832-7749

MacDon Inc.
10708 N. Pomona Avenue
Kansas City, Missouri
United States, 64153-1924
t. (816) 891-7313
f. (816) 891-7323

MacDon Australia Pty. Ltd.
A.C.N. 079 393 721
P.O. Box 243
Suite 3, 143 Main Street
Greensborough, Victoria
Australia 3088
t. 03 9432 9982
f. 03 9432 9972

CUSTOMERS
www.macdon.com

DEALERS
www.macdondealers.com

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Printed in Canada
Model D50 and D60 Harvest Header for Self-Propelled Windrowers
Pre-Delivery Checklist - N.A.

Perform these checks prior to delivery to your customer. **Adjustments are normally not required as the machine is factory assembled and adjusted.** If adjustments are required, refer to the appropriate page number in this manual. The completed checklist should be retained either by the Operator or the Dealer.

**CAUTION:** Carefully follow the instructions given. Be alert for safety related messages which bring your attention to hazards and unsafe practices.

Header Serial Number: __________________________

<table>
<thead>
<tr>
<th>✓</th>
<th>ITEM</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Check for shipping damage or missing parts. Be sure all shipping dunnage is removed.</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Check for loose hardware. Tighten to required torque.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Check tire pressure (Transport/Stabilizer Option).</td>
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</tr>
<tr>
<td></td>
<td>Check wheel bolt torque (Transport/Stabilizer Option).</td>
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</tr>
<tr>
<td></td>
<td>Check wobble box breather position.</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Check wobble box lube level.</td>
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<td></td>
<td>Check sickle drive belt(s) tension.</td>
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<td></td>
<td>Check reel centered between header endsheets.</td>
<td>34</td>
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<td></td>
<td>Grease all bearings and U-joints.</td>
<td>39 - 41</td>
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<tr>
<td></td>
<td>Check draper tension.</td>
<td>35</td>
</tr>
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<td></td>
<td>Check draper seal.</td>
<td>38</td>
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<td></td>
<td>Check reel tine to cutterbar clearance.</td>
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<td>Check fitment of endshields.</td>
<td>27</td>
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<td></td>
<td>Check that skid shoes are evenly adjusted at a setting appropriate for first crop.</td>
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<td></td>
<td>Check that header is level.</td>
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<tr>
<td></td>
<td><strong>RUN-UP PROCEDURE.</strong></td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Check hydraulic hose and wiring harness routing for clearance when raising or lowering header and reel.</td>
<td>---</td>
</tr>
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<td></td>
<td>Check lights are functional.</td>
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<td></td>
<td>Check knife speed.</td>
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<td></td>
<td><strong>POST RUN-UP CHECK. STOP ENGINE.</strong></td>
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<td></td>
<td>Check belt drives for heated bearings.</td>
<td>33 - 34</td>
</tr>
<tr>
<td></td>
<td>Check knife sections for discoloration caused by misalignment of components.</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Check for hydraulic leaks.</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Check manual storage case contains manuals.</td>
<td>42</td>
</tr>
</tbody>
</table>

Date Checked: ___________________________  Checked by: ___________________________

Form 169007  Revision C