





GT



The GT corn head was introduced in 2016. The design of this head introduced features such as the QuadSuspension<sup>™</sup> for the deck plates, individual slip clutches on individual components, and a 100% gear driven driveline. Each row unit has independent slip clutches for each gathering chain, the stalk rollers, and the stalk chopper (if equipped).



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## MAINTENANCE

The maintenance items in this section outlines the recommended intervals and lubricants required to keep the corn head functioning properly.

For more information on maintenance items and repairs please refer to your Operators Manual or the Drago Service Video website at <u>https://www.dragotec.com/service-video</u>

It is important to use only the lubricants specified or degradation of corn head performance may appear over time. Unlike most other EPO greases, Mobilux EPO grease does not use clay or polymers as the base material. When clay-based greases are used over time the grease evaporates and leaves behind the base material. This base material deposit can build up over time preventing normal operation. This is the common cause of deck plates and gathering chain tensioners to stick. The pictures below show what the base material deposits look like.







#### **REQUIRED FLUIDS**

LUBRICANT	LOCATION	CAPACITY
SAE 30W Oil	- Gathering Chains	-
Mobilux EP 0 Grease	<ul> <li>Stalk Rollers</li> <li>Gathering Chain Tensioner</li> <li>Gathering Chain Drive Sprocket</li> <li>Gathering Chain Idler Sprocket</li> <li>Folding Joints</li> <li>Jack Shaft Bearings</li> <li>PTO U-Joints</li> <li>PTO Shield Bearing</li> <li>Cross-Auger Slip Clutch</li> </ul>	
Mobil SHC 634 Oil	<ul> <li>Intermediate Gearbox</li> <li>Row Unit Gearbox (Non-Chop)</li> <li>Row Unit Gearbox (Single Chop)</li> <li>Row Unit Gearbox (Twin Chop+)</li> <li>Cross-Auger Gearbox</li> <li>Heavy-Duty Drive Gearbox</li> </ul>	47 oz (1.4L) 98 oz (2.9L) 179 oz (5.3L) 193 oz (5.7L) 85 oz (2.5L) 71 oz (2.1L)

#### LUBRICANT PART NUMBERS

LUBRICANT	SIZE	PART NUMBER
Mobilux EP 0 Grease	14 oz (414mL) Tube – Case of 10	GR-1000T
Mobil SHC 634 Oil	Quart (0.9L) – Single Case – 12 Quarts 5 Gallon Bucket (19L)	DR-MOB634-QT DR-MOB634-CASE DR-MOB634-5GAL



#### PRE-SEASON

CHECK	<ul> <li>Heavy-Duty Gearbox Oil Levels</li> <li>Intermediate Gearbox Oil Levels</li> <li>Row Unit Gearbox Oil Levels</li> <li>Cross-Auger Gearbox Oil Levels</li> <li>Deck Plate Gaps</li> </ul>
ADJUST	- Gathering Chain Tensioners
LUBRICATE	<ul> <li>Gathering Chain Tensioners</li> <li>Stalk Rollers</li> </ul>

#### NORMAL OPERATION

EVERY 20 HOURS			
CHECK	- Chopping Knives		
LUBRICATE	<ul> <li>Stalk Rollers</li> <li>Folding Tow Shaft Couplers</li> </ul>		
EVERY 100 HOURS			
CHECK	<ul> <li>Heavy-Duty Drive Gearbox Oil Levels</li> <li>Intermediate Gearbox Oil Levels</li> <li>Row Unit Gearbox Oil Levels</li> <li>Cross-Auger Gearbox Oil Levels</li> <li>Gathering Chain Tensioners</li> </ul>		
ADJUST	- Clean Deck Plates		
LUBRICATE	<ul> <li>Jack Shaft Bearings</li> <li>Gathering Chain Tensioners</li> <li>Gathering Chain Drive Sprockets</li> <li>Gathering Chain Idler Sprockets</li> <li>PTO U-joints</li> <li>PTO Shield Bearings</li> </ul>		
EVERY 250 HOURS OR ANNUALLY			
CHECK	- Inspect Gathering Chain Wear Guides		
LUBRICATE	<ul> <li>Oil Gathering Chains</li> <li>Folding Joints</li> <li>Cross-Auger Slip Clutch(s)</li> </ul>		

#### IF PERFORMING ANNUAL MAINTENANCE, COMPLETE THE 20, AND 100-HOUR SERVICES, IN ADDITION TO THE 250-HOUR SERVICE



#### DOWN CORN

DAILY			
CHECK	<ul> <li>Chopping Knives</li> <li>Gathering Chain Tensioners</li> </ul>		
LUBRICATE	<ul> <li>Stalk Rollers</li> <li>Gathering Chain Idler Sprockets</li> <li>Gathering Chain Tensioners</li> </ul>		
EVERY 20 HOURS			
LUBRICATE	- Folding Tow Shaft Couplers		
EVERY 100 HOURS			
CHECK	<ul> <li>Heavy-Duty Drive Gearbox Oil Levels</li> <li>Intermediate Gearbox Oil Levels</li> <li>Row Unit Gearbox Oil Levels</li> <li>Cross-Auger Gearbox Oil Levels</li> </ul>		
ADJUST	- Clean Deck Plates		
LUBRICATE	<ul> <li>Jack Shaft Bearings</li> <li>Gathering Chain Drive Sprockets</li> <li>PTO U-joints</li> <li>PTO Shield Bearings</li> </ul>		
EVERY 250 HOURS OR ANNUALLY			
CHECK	- Inspect Gathering Chain Wear Guides		
LUBRICATE	<ul> <li>Oil Gathering Chains</li> <li>Folding Joints</li> <li>Cross-Auger Slip Clutch(s)</li> </ul>		

IF PERFORMING ANNUAL MAINTENANCE COMPLETE THE DAILY, 20, AND 100-HOUR SERVICES, IN ADDITION TO THE 250-HOUR SERVICE



#### **PRE-SEASON**





#### 20-HOUR



100-HOUR





#### 100-HOUR (Cont.)



#### **250-HOUR OR YEARLY**

If performing year end service complete the 20, and 100-hour services in addition to the 250-hour service below.





#### 250-HOUR OR YEARLY (Cont.)



# INITIAL SETTINGS

The settings listed in this section are the suggested settings to be used when starting each harvest season. Adjustments can then be made to best suit the conditions being operated in. The head angle and head speed are the most critical to maintaining performance of the corn head. Before going to the field each year all settings shown should be checked to verify that the head is set properly.

#### CORN HEAD ANGLE

The corn head angle is measured from the deck plates and should be between 17° and 23° for non-chopping heads and 21° to 23° for chopping heads.

- For normal operation the recommended setting is 20°-21°
- For down corn the recommended setting is 23°

To check the head angle, park the combine with the corn head attached, on a flat, level surface, and place the corn head in operating position. Place an angle finder on the deck plates to check the angle.

Whenever the corn head angle is adjusted the snout angle should be adjusted as well.

See Section 6.1 in the Operators Manual for further information.











#### HEAD SPEED

Excessive butt shelling and poor feeding can occur from the head being operated either **TOO FAST** or **TOO SLOW**. The speed that the corn head operates is critical to maintain proper performance with the Drago corn head. Any time the head is adapted to fit a different combine, the gearing should be checked to verify it is correct. Contact your dealer to determine the correct gearing for your combine.

The corn head should be operated in the 630-700rpm range. The recommended initial speed is 650-675rpm. Changes can be made to this speed to suit different conditions.

Use the formula below to determine the correct combine feeder house speed for the desired head speed.

Please note that some combines do not display the actual feeder output speed in the cab. If this is encountered the best practice is to use a hand tachometer on the output shaft of the feeder house.

# $Head Speed = \frac{Actual Feeder Speed x DriveR Gear}{DriveN Gear}$

#### Example:

A Gleaner S88 combine with a variable speed feeder house drive. The monitor in the cab is showing 510 rpm feeder speed.

- This model of combine requires a 1.5 multiplier be added to the in-cab feeder speed reading due to the feeder speed being monitored at a different point in the system.
  - $\circ$  Actual Feeder Speed = 510rpm x 1.5
  - Actual feeder speed for this example is 765 rpm.
- Determine which driveR and driveN gears are currently installed on the corn head.
  - The driveN gear on the heavy-duty gear drive is always 30-tooth. Only the driveR gear is changed.
  - For this example, the driveR is a 26-tooth gear and the driveN is a 30-tooth gear.

$$Head Speed = \frac{765 \, rpm \, x \, 26 \, teeth}{30 \, teeth}$$

This works out to 663rpm actual head speed.



#### SNOUT ADJUSTMENTS

When positioning the snouts do not place them below the breakover line. This line extends from the bottom surface of the bonnet forward toward the wear point. If the snouts are below this point and an obstacle is encountered, they will be more likely to fold under the corn head instead of floating over top of the obstacle.

See Section 6.2 in the Operators Manual for specific adjustment procedures.



#### **DECK PLATE GAP**

Check the deck plate gap using tool ST-8 which is available from your local Drago dealer. Place the tool where the curved portion of the deck plate stops.

- Insert the tool until the tab marked "MIN\_F" is between the deck plates. The deck plates should not move, or, move very slightly when the tool is inserted.
- Insert the tool to the tab marked "MAX\_F" is between the deck plates. The deck plates should spread to the maximum setting and should not be able to be opened further.

If adjustment is required see Section 6.6 in the Operators Manual.





#### DECK PLATE TENSION

Deck plate tension can be checked by seeing if the two adjusting bolts are approximately centered between the two lines on the cover plate.

If adjustment is required see *Section 6.6* in the Operators Manual.



#### **GATHERING CHAIN TENSION**

Check the gathering chain tension by pulling on the side of the gathering chain until the tensioning fork hits the internal stop. Mark the tensioning fork shaft and release the chain. The tensioning fork should have 1/4" to 1/4"

If adjustment is required see Section 6.7 in the Operators Manual.



# **PART REPLACEMENT**



# PART REPLACEMENT

The information below is intended to help evaluate when certain wear parts are nearing the end of their intended lifespan. Dragotec recommends only original OLIMAC wear parts be used. Use of third-party parts may void warranties and have been shown to have a shorter wear life.

#### Stalk Roller Knives

The stalk roller knives are due to be replaced when visible wear is seen on the front edge of the knife blade approximately 5-6 inches back. The front edge of the roller knives should be inspected to see if wear has progressed past the tungsten coated edge.

It is not recommended to flip the stalk roller knives. This may cause material to become wrapped around the rear of the stalk roller damaging the stalk roller seal.



# **PART REPLACEMENT**



#### **Gathering Chains**

The gathering chains should be replaced when they reach 3% stretch. Continuing to run past this point can cause the chains to break and potentially enter the combine. Measure the amount of exposed tensioner tube **(highlighted area)**. This dimension should be  $2^{13}/_{16}$ " or less.



#### **Deck Plates**

The deck plates can become worn over time causing material to hairpin on sharp edges impeding feeding. The wear is typically concentrated on the vertical edge that contacts the crop on the front curve (highlighted area). When this vertical edge becomes thin the deck plates should be replaced.



# **PERFORMANCE PARTS**



### PERFORMANCE PARTS

Drago offers several different product performance parts and accessories for different conditions. The two shown below are considered to provide the best performance increase across the widest range of conditions.

#### SNOUT WEAR POINTS

In 2018, Drago introduced a new standard poly wear point for GT corn heads with a new front profile.

- The standard wear point has a shorter, less aggressive profile, with a higher tip point to help reduce the risk of folding the snouts under.
- The aggressive wear point has a pointed tip that sits low to the ground and is recommended for severe down corn conditions where the wear point tries to ride up over the corn.

The picture below shows the difference in the wear points. The yellow is the aggressive wear point, and the green is the standard wear point.



#### AGGRESSIVE GATHERING CHAINS

All Drago GT heads can be optioned from the factory with an optional aggressive gathering chain. Heads may be optioned with aggressive chains on either the center 4 rows, or across the whole head. The aggressive gathering chain uses a longer lug as compared to the standard chain. The longer lug allows for less open space near the top of the row unit. This provides a more positive action to help push material into the cross-auger.

The aggressive gathering chain can be added to any existing GT head. On 2016 built corn heads an additional modification is required. Refer to *Product Bulletin PB-2016.2* for more information.



### TROUBLESHOOTING



# TROUBLESHOOTING



# TROUBLESHOOTING





# TROUBLESHOOTING





**NOTES** 

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# SERVICE VIDEOS



#### SERVICE VIDEOS AT YOUR FINGERTIPS

Keep up to date on how you can service your corn head all from your mobile phone at www.Dragotec.com/service-video.





