Axial-Flow® Combines

Table of Contents

Printed in England
April 1993

Section

1002

SPECIFICATIONS

J I Case

Don 7-33500

Printed in England
June 1992

TABLE OF CONTENTS

GENERAL SPECIFICATIONS

Capacities 1640

Engine Oil (With Filter Change)	15 Litres	3.96 U.S Gal
Engine Oil (Without Filter Change)	14.3 Litres	3.78 U.S Gal
Cooling System	34.1 Litres	9.0 U.S. Gal
Transmission	8.5 Litres	2.2 U.S. Gal
Final Drive (Each Side)	5.2 Litres	1.37 U.S. Gal
Hydraulic Reservoir	30.3 Litres	8.0 U.S. Gal
Lower Unloader Gear Case	0.83 Litres	0.9 U.S. Quarts
PTO Housing	13.2 Litres	3.48 U.S. Gal
Feeder and Cleaning Fan Gear Case	2.6 Litres	2.7 U.S. Quarts
Rotor Gear Case	3.8 Litres	4.0 U.S. Quarts
Straw Chopper	3.1 Litres	3.28 U.S. Quarts
Fuel Tank Capacity	350 Litres	92.4 U.S. Gal

Capacities 1660

Engine Oil (With Filter Change)	21 Litres	5.5 U.S. Gal
Engine Oil (Without Filter Change)	19 Litres	5.0 U.S. Gal
Cooling System	37.8 Litres	9.98 U.S. Gal
Transmission	18.9 Litres	4.99 U.S. Gal
Final Drive (Each Side)	12.3 Litres	3.25 U.S. Gal
Hydraulic Reservoir (Corn and Grain)	30.3 Litres	8.0 U.S. Gal
Hydraulic Reservoir (Rice Combines)	38 Litres	10 U.S. Gal
Lower Unloader Gear Case	0.83 Litres	0.9 U.S. Quarts
PTO Housing	13.2 Litres	3.48 U.S. Gal
Feeder and Cleaning Fan Gear Case	2.6 Litres	2.7 U.S. Quarts
Rotor Gear Case	3.8 Litres	4.0 U.S. Quarts
Straw Chopper	3.1 Litres	3.28 U.S. Quarts
Fuel Tank Capacity	350 Litres	92.4 U.S. Gal

Capacities 1680

Engine Oil (With Filter Change)	21 Litres	5.5 U.S. Gal
Engine Oil (Without Filter Change)	19 Litres	5.0 U.S. Gal
Cooling System	37.8 Litres	9.98 U.S. Gal
Transmission	18.9 Litres	4.99 U.S. Gal
Final Drive (Each Side)	12.3 Litres	3.25 U.S. Gal
Hydraulic Reservoir (Corn and Grain)	30.3 Litres	8.0 U.S. Gal
Hydraulic Reservoir (Rice Combines)	38 Litres	10 U.S. Gal
Lower Unloader Gear Case	0.83 Litres	0.9 U.S. Quarts
PTO Housing	13.2 Litres	3.48 U.S. Gal
Feeder and Cleaning Fan Gear Case	2.6 Litres	2.7 U.S. Quarts
Rotor Gear Case	3.8 Litres	4.0 U.S. Quarts
Straw Chopper	3.1 Litres	3.28 U.S. Quarts
Fuel Tank Capacity	466 Litres	123 U.S. Gal

Electrical Specifications

Type of System	12 Volt, Negative Ground	

Batteries

Number of Batteries Required	2	
Voltage of Battery	12 Volt	

Starter Motor (fitted to the Navistar Engine)

System Voltage	12 Volt, Internal Ground	
Rated Volts	10	
Minimum AMPS	140	
Maximum AMPS	175	
Minimum RPM	6,600	
Maximum RPM	8,200	
Rotation	To Be Counterclockwise as Viewed from the Drive End	
Hold-In Winding Resistance	16 to 20 Amps at 10 Volts	
Pull-In Winding Resistance	24 to 29 Amps at 5 Volts	
Pinion Clearance	0.254 to 1.778 mm	0.010 to 0.070 inch

Starter Motor (fitted to the N.C.E. Engine)

Rated Voltage	12 Volts	
Output	5.3 hp	4.0 kwh
Time Rating	30 seconds	
Direction of Rotation	Clockwise from pinion end	

Alternator (fitted to the Navistar Engine)

Manufacturer	Motorola	
Output	89 Amps at 5000 RPM	
Resistance of Rotor Winding	2.3 to 2.4 Ohms	

Alternator (fitted to the N.C.E. Engine)

Manufacturer	Robert Bosch	
Output	14 Volts at 110 Amps	
Resistance of Rotor Winding	2.60 ± 0.26 Ohms	
Resistance of Stator Winding	0.053 to 0.058 Ohms	
Mimimum Brush Length	5 mm	0.2 inch

Steering Specifications

Rear Axle

Toe-In for 406 mm (16 inch) Wheels	7.6 to 10 mm	19/64 to 13/32 inch
Toe-In for 610 mm (24 inch) Wheels	11 to 15 mm	13/33 to 19/32 inch

Steering Hand Pump

Type	Danfoss	
Rated Flow (1640, 1660)	12.5 Litres/min	3.3. U.S. gpm
Rated Flow (1680)	16 Litres/min	4.2 U.S. gpm
Rated Flow (1640, 1660 and 1680 German Models)	12.5 Litres/min	3.3 U.S. gpm
Rotor - Stator Wear Limit	0.178 mm	0.007 inch

Transmission Specifications

Foot-N-Inch Valve		
Relief Pressure of the Foot-N-Inch Valve with the Foot-N-Inch Pedal Down	4.14 bar Max	60 psi Max
1640, 1660 and 1680 Corn and Grain		
Relief Pressure (Foot-N-Inch valve setting) with the Foot-N-Inch pedal up	372 to 386 bar	5400 to 5600 psi
1660 and 1680 Rice Combines		
Relief Pressure (Foot-N-Inch valve setting) with Foot-N-Inch pedal up	407 to 421 bar	5900 to 6100 psi
Foot-N-Inch valve setting	441 to 455 bar	6400 to 6600 psi
Foot-N-Inch Valve Spring Specifications (Corn and Grain)		
Free Length	35.74 mm	1.407 inch
Wire Diameter	1.83 mm	0.072 inch
Outside Diameter	11.84 mm	0.468 inch
Inside Diameter	8.23 mm	0.324 inch
Total Number of Coils		10
Compression Strength	22.86 mm at 174 N	0.89 inch at 39 lbf
Foot-N-Inch Valve Spring Specifications (Rice Combines)		
Free Length	31.40 mm	1.236 inch
Wire Diameter	2.03 mm	0.080 inch
Outside Diameter	11.13 mm	0.468 inch
Inside Diameter	7.82 mm	0.308 inch
Total Number of Coils		10.5
Compression Strength	22.86 mm at 174 N	0.9 inch at 39 lbf
Hydrostatic Drive Pump		
Hydrostatic Pump Shaft to PTO Pulley Spline Backlash	0.094 mm	0.004 inch
Hydrostatic Pump Displacement at 2500 rpm (1640)	173 to 177 Litres/min	38 to 39 U.S. gpm
Hydrostatic Pump displacement at 2500 rpm (1660 and 1680 Corn and Grain)	200 to 218 Litres/min	52 to 57 U.S. gpm
Hydrostatic Pump displacement at 2500 rpm (1680 Rice)	235 to 257 Litres/min	62 to 68 U.S. gpm
Hydrostatic Drive Motor (Single Speed)		
Clearance Between Slipper Retainer and Hold Down Plate	0.20 mm	0.008 inch
Pump Shaft End Play	0.05 to 0.18 mm	0.002 to 0.007 inch
Hydrostatic Drive Motor (2 Speed)		
Low Pressure Relief Valve Setting	11 bar	160 psi
Motor Displacement (Per Revolution)	88.5 cm^3	5.4 in^3
Pump Shaft End Play	0.05 to 0.18 mm	0.002 to 0.007 inch
Swashplate Breakaway Force	8.9 to 22.4 Nm	2 to 5 lbf
Transmission (1640)		
Pinion Shaft End Play	0.05 to 0.2 mm	0.002 to 0.008 inch
Differential Bearing Pre-Load	31 N	7 lbf
Transmission (1660 and 1680)		
Pinion Shaft End Play	0.05 to 0.2 mm	0.002 to 0.008 inch
Spool Gear End Play	1.5 mm max	0.591 inch max
Change Gear End Play	0.05 to 0.2 mm	0.002 to 0.008 inch
Shifter Rail Detent Springs		
Free Length	44 mm	1.7 inch
Number of coils		12
Outside Diameter	12.5 mm	0.05 inch
Wire Diameter	1.6 mm	0.06 inch

Final Drive (1640)		
Final Drive Rolling Torque (New Bearings)	19 to 23 Nm	14 to 17 lb ft
Final Drive Rolling Torque (With One New Bearing and One Old Bearing)	14 to 18 Nm	10 to 13 lb ft
Pinion Shaft End Play	0.05 to 0.15 mm	0.002 to 0.006 inch
Final Drive (1660 to 1680)		
Final Drive Rolling Torque (New Bearings)	7 to 12 Nm	5 to 9 lb ft above rolling torque
Final Drive Rolling Torque (With One New and One Old Bearing)	4 to 7 Nm	3 to 5 lb ft above rolling torque
Pinion Shaft Rolling Torque	0.6 to 2.3 Nm	5 to 20 lb in
PTO Housing		
PTO Driven Gear Backlash	0.102 to 0.203 mm	0.004 to 0.008 inch
Separator Drive Shaft Bearing Pre-Load	0.57 to 1.69 Nm	5 to 15 lb in

Brake Specifications

Brakes		
Master Cylinder Push Rod Clearance Measured at Pedal Seal Support	2 to 5 mm	0.08 to 0.2 inch
Brake Pedal Height Measured from Center of Stationary Pedal	102 to 127 mm	4 to 5 inch
Brake Assemblies (1640)		
Actuating Disc Springs		
Number of Coils		3.5
Free Length - Inside of Coils	24 mm	0.94 inch
OD	21 mm	0.81 inch
Wire Diameter	2.67 mm	0.105 inch
Extend to 27 mm (1.06 inch)	88.9 N	20 lbf
Brake Lever Return Spring		
Number of Coils		11
Free Length - Inside of Coils	69,8 mm	2.75 inch
OD	19 mm	0.75 inch
Wire Diameter	3 mm	0.12 inch
Extend to 74.6 mm (2.93 inch)	156 to 200 N	35 to 45 lbf
Brake Cylinder Spring		
Number of Coils		12
Free Length	62 mm	2.45 inch
OD	20.6 mm	0.81 inch
Wire Diameter	1.21 mm	0.047 inch
Extend to 44.5 mm (1.75 inch)	0.45 N	1 lbf
Brake Assemblies (1660 and 1680)		
Actuator Disc Springs		
Number of Coils		3.5
Free Length - Inside of Coils	27 to 28 mm	1.06 to 1.12 inch
OD	21 mm	0.84 inch
Wire Diameter	3 mm	0.105 inch
Extend to 32 mm (1.25 inch)	111 to 147 N	25 to 33 lbf

Brake Lever Return Spring

Number of Coils		19.25
Free Length - Inside of Coils	68 mm	2.67 inch
OD	17 mm	0.67 inch
Wire Diameter	2.4 mm	0.095 inch
Extend to 81 mm (3.19 inch)	76 N	17 lbf

Brake Cylinder Spring

Number of Coils		14
Free Length - Inside	68 mm	2.67 inch
OD	23 mm	0.88 inch
Wire Diameter	1.21 mm	0.047 inch
Extend to 44.5 mm (1.75 inch)	44 N	10 lbf

Hydraulic Specifications

For Combines Prior to P.I.N.

1640 JJC0097190	**1640E JJC0096095**
1660 JJC0103800	**1660E JJC0100280**
1680 JJC0117060	**1680E JJC0114165**

Main Pump Flow (Steering and Valve Stack)	68 to 83 Litres/min	18 to 22 U.S. gpm
Primary Relief Valve Pressure	138 to 145 bar	2000 to 2100 psi
Secondary Relief Valve Pressure	152 to 159 bar	2200 to 2300 psi
Header Lift Flow	39.7 Litres/min	10.5 U.S. gpm
Power Steering Flow	14.4 to 20.8 Litres/min	3.8 to 5.5 U.S. gpm
Reel Lift Flow (minimum)	5.7 to 7.6 Litres/min	1.5 to 2.0 U.S. gpm
Reel Lift Pressure	124 to 131 bar	1800 to 1900 psi
Reel Drive Pump Flow	37.9 to 45.4 Litres/min	10.0 to 12.0 U.S. gpm
Unloader Auger Pressure	124 to 145 bar	1800 to 2100 psi
Accumulator Pressure	76 bar	1100 psi
PTO Drive Accumulator Pressure	6.2 to 7.6 bar	90 to 110 psi

PTO Drive Clutch Pressure:

Engine RPM	Separator	Pressure	Flow
High Idle (2700)	Off	14.4 to 16.2 bar 210 to 235 psi	0
High Idle (2700)	On	13.8 bar minimum 200 psi minimum	3.0 to 4.5 L/min 0.8 to 1.2 U.S. gpm
Low Idle (1000)	Off	13.1 bar minimum 190 psi minimum	0
Low Idle (1000)	On	12.4 bar minimum 180 psi minimum	3.0 to 4.5 L/min 0.8 to 1.2 U.S. gpm

Reel Drive Control Valve

Solenoid Limit Check at 1.1 Litres/min (0.2 U.S. gpm) out of the Work Port		250 to 280 Amperes
With Pressure at Work Port of 41.4 bar (600 psi) and 42.8 bar (1200 psi) and Work Port flow of 22.1 Litres/min (4.9 U.S. gpm), Solenoid Draw should be		0.4 to 0.6 Amperes
Differential Pressure Between Work Port and Tank Port	15.5 to 19 bar	225 to 275 psi
With Pressure at Work Port between 6.9 and 117.2 bar (100 to 1700 psi) and a maximum of 1.2 Amperes supplied, Work Port Flow should be	36.8 to 40.5 Litres/min	9.7 to 10.6 U.S. gpm

Hydraulic Specifications

For Combines After P.I.N.

1640 JJC0097190	**1640E JJC0096095**
1660 JJC0103800	**1660E JJC0100280**
1680 JJC0117060	**1680E JJC0114165**

Specifications at 2700 Engine RPM and Oil temperature at 100°F (38 °C) or Higher.

Auxiliary Pump Output		
Front Section to Valve Stack (Minimum)	53 Litres/min at 69 bar	14.0 U.S. gpm at 1000 psi
Front Section to Steering	14.4 to 20.8 Litres/min at 34 bar	3.8 to 5.5 U.S. gpm at 500 psi
Rear Section (Reel drive)	40.9 Litres/min at 34 bar	10.8 U.S. gpm at 500 psi Minimum at the Couplers
Hydraulic Oil Flows at the Header Couplers		
Header Lift (minimum)	44.7 Litres/min at 69 bar	11.8 U.S. gpm at 1000 psi
Reel Drive (minimum)	37.8 Litres/min at 34 bar	10 U.S. gpm at 500 psi
Secondary Circuit	5.6 to 7.6 Litres/min at 34 bar	1.5 to 2.0 U.S. gpm at 500 psi
System Relief Pressure		
Steering	137 to 166 bar	2000 to 2400 psi
Auxiliary	137 to 145 bar	2000 to 2100 psi
Header Lift	169 to 176 bar	2450 to 2550 psi
Reel Drive	133 to 145 bar	1925 to 2100 psi

Air Conditioner Specifications

Air Conditioner Compressor	
Type	5 horizontal pistons operating on a cam plate
Manufacturer	SANDEN
Model	SD 508 HD
Bore	35 mm
Stroke	28.6 mm
Displacement Per Revolution	133 cc
Clutch Voltage	12V
Compressor Lubrication	
Type	Positive Pressure
Lubricant	Suniso 5GS, Texaco Capella WF100, Shell Clavus 129
Capacity	170 ml
Refrigerant	
Type	R-12 to Case Specification B6
Boiling Point at Atmospheric Pressure	−30°C / −22°F
Drive Belt Tension (New)	422 to 516 N / 95 to 116 lbf
Drive Belt Tension (Used)	400 to 489 N / 90 to 110 lbf
High Pressure Switch	
Location	Discharge Hose From Compressor
Operation	Closed by Excessive Pressure
Cut-Out Pressure	25.2 to 26.5 bar

Low Pressure Switch		
Location	Evaporator Outlet in the Cab Roof	
Operation	Closed by Low Pressure	
Cut-Out Pressure	0.28 to 0.41 bar	4 to 6 psi
Temperature Control Switch		
Location	Cab Roof, Sensor in the Evaporator	
Cut-Out Temperature	2°C	32°F
Cut-In Temperature	6 to 7°C and 16 to 21°C	43 to 45°F and 61 to 70°F

Chassis Specifications

Separator Drive Jackshaft		
Jackshaft Rolling Torque Without Seals	0.6 to 1.1 Nm	5 to 10 lb in
Distance from Rotor Torque Sensing Pulley to Rotor Drive Pulley	95 mm	3.75 inch
Alignment of Rotor Torque Sensing Pulley to Rotor Drive Pulley - Within	1.52 mm	0.060 inch
Drive Pulley Trap Clearance	3 mm	0.125 inch
Rotor Drive		
Adjustable Pulley Half - Bushing Service Limit	Coated Material not Worn Through	
Distance Between Inner Surface of Rotor Driven Pulley Halves for Correct Belt Tension	10.4 mm	0.41 inch
Torque Sensing Spring Free Length	198 mm	7.8 inch
Torque Sensing Spring Free Length After P.I.N.		
1640 JJC 0097190 1640E JJC 0096095 1660 JJC 0100327 1660E JJC 0100280 1680 JJC 0116411 1680E JJC 0114165	229 mm	9 inch
Rotor Gearbox		
Input Shaft End Play (Maximum)	0.28 mm	0.011 inch
Output Shaft End Play (Maximum)	0.28 mm	0.011 inch
Input Shat Rolling Torque (Maximum all Gears)	1.7 Nm	15 lb in
Roller Bearing to Output Shaft Hub Face Clearance	1.5 mm	0.060 inch
Shifter Rail Detent Spring Specifications:		
Free Length	47.02 mm	1.85 inch
Number of Coils		15
OD	10.72 mm	0.42 inch
Wire Diameter	1.588 mm	0.0625 inch
Compress to 31.75 mm (1.25 inch)	97 N	21.8 lbf
Rotor		
Clearance Between the Rotor Front Bearing Housing and the Rotor Impeller Blades	0.76 to 3.81 mm	0.03 to 0.15 inch
Clearance Between the Rotor Speed Sensor and the Rotor Speed Sprocket	0.356 to 2.286 mm	0.014 to 0.09 inch
Feeder and Cleaning Fan		
Gear Backlash	0.13 to 0.28 mm	0.005 to 0.011 inch
Bearing Pre-Load		
Input Shaft	0.34 to 1.34 Nm	3 to 12 lb in
Output Shaft	0.22 to 1.12 Nm	2 to 10 lb in
Input Shaft Pinion		
Mounting Distance	52.5 to 52.6 mm	2.067 to 2.071 inch

Cleaning Fan Drive		
Cleaning Fan Speed		450 to 1150 rpm
Slow Fan Drive Speed (If Equipped)		156 to 453 rpm
Fan Jackshaft Drive Belt Tension Adjustment	240 mm	9.5 inch
Cleaning Fan		
Drive Pulley Distance from Frame Rail to Center of Pulley	187 mm	7.34 inch
Blade Distance from End of Fan Blade to Side of Fan Housing	6.5 to 12.5 mm	0.25 to 0.5 inch
Blade Distance from Tip of Fan Blade to Back of Fan Housing	3 to 6 mm	0.125 to 0.25 inch
Air Gap Between Cleaning Fan Speed Sensor and Cleaning Fan Sprocket	0.35 to 2.28 mm	0.015 to 0.09 inch
Maximum Distance Between Centerline of Cleaning Fan Sensor and Centerline of Sensor Sprocket	4 mm	0.156 inch
Elevator Drive Jackshaft		
1680 Combine Slip Clutch Spring		
Free Length	76.2 mm	3.0 inch
OD	35.1 mm	1.375 inch
Number of Coils		8.25
Wire Diameter	6.67 mm	0.263 inch
Compress to 58.7 mm (2-5/16 inch)	2424 N	545 lbf
1620, 1640, 1660 Combine Slip Clutch Spring		
Free Length	79.5 mm	3.125 inch
OD	24.8 mm	0.9686 inch
Number of Coils		11
Wire Diameter	5.26 mm	0.219 inch
Compress to 63.5 mm (2-1/2 inch)	1659 N	374 lbf
Tailings elevator Drive Sprocket Distance from Clutch Retainer Plate to Sprocket	196.85 mm	7.75 inch
Clean Grain elevator Drive Sprocket Distance from Grain elevator Reinforcement Plate to Center of Sprocket Teeth	41.275 mm	1.625 inch
Slip Clutch Warning Horn Distance from Clutch Retaining Plate to Horn Sensor	1.6 to 3.2 mm	0.0625 to 0.125 inch
Discharge Beater		
Gap Between Shaft Speed Sensor and Sensor Magnet	3 mm	0.125 inch
Unloader Drive		
Drive Chain Free Movement	25.4 mm	1 inch
Unloader Jackshaft Driven Pulley to Pulley Belt Guide Gap - Within Lower Left 45 Degree Quadrant	3 to 4.5 mm	0.125 to 0.1719 inch
Unloader Jackshaft Driven Pulley to Pulley Belt Guide Gap - Outside 45 Degree Quadrant	3 to 7 mm	0.125 to 0.2656 inch
Unloader Jackshaft Drive Pulley to Pulley Guide Belt	2.8 to 3.3 mm	0.1093 to 0.125 inch
Unloader Belt Tension Pulley Return Spring Length	177.8 mm	7 inch
Straw Spreader Drive		
Spreader Drive Belt Tension Spacer Length	165 mm	6.5 inch
Bevel Gear End Play	0.8 to 1.5 mm	0.0315 to 0.60 inch

Header Cutter Bar Drive		
Knife Drive Assembly Clearances		
Trunnion Bearings End Play	0.05 to 0.10 mm	0.002 to 0.004 inch
Inclined Delivery Auger		
Sprocket Shaft Bearing Pre-Load	0.9 to 1.4 Nm	8 to 12 lb in
1000 Corn Head		
Single Clutch		
Spring Height Adjustment		
Top of Spring Washer to Bottom of Spring Retainer	43.5 mm	1.7 inch
Torque Required to Slip Clutch	312 to 407 Nm	230 to 300 lb ft
Double Clutch		
Spring Height Adjustment	16 mm	0.63 inch
Torque Required to Slip Clutch	340 to 440 Nm	250 to 325 lb ft
Stalk Roll Knife to Weed Knife Clearance	1.524 mm	0.060 inch
Auger Clerance to Stripper	8 mm	0.3125 inch
Auger Clearance to Trough	25 mm	1 inch
Stalk Roll Weed Knife Clearance	1.5 mm	0.0625 inch
Stalk Roll Knife Cutting Edge Clearance	0.8 to 2 mm	0.0312 to 0.0781 inch
Stalk Roll Stripper Shield Clearance		
Front	32 mm	1.250 inch
Rear	35 mm	1.375 inch
Gather Chain Adjustment Between Washer and Sleeve	3 to 6.5 mm	0.125 to 0.25 inch
Stalk Roll Alignment Between Knives	46 mm	1.8125 inch
Auger Slip Clutch Spring Height Adjustment	13 mm	0.50 inch
Stalk Roll Drive Lubricant Capacity	2.13 Litre	4.5 pt
Stalk Roll Drive Lubricant - Case 135 HEP 85W-140 Gear Lubricant		
Seal Installation Depth - Case to Face of Seal		
Main Shaft End Cap	10 mm	0.393 inch
Stalk Roll Housing	18.5 mm	0.73 inch
Gather Shaft	5 mm	0.196 inch
Anti Sieze Compound on Chain Tension Sliding Rods		
Permatez No. 2 on Oil Level Gauge Threads		
Loctite 515 on all Stalk Roll Drive Gasket and OD of Seals		
Stalk Roll Knife to Knife Adjustment	46 mm	1.1875 inch
Stripper Shield Clearance		
Front	32 mm	1.25 inch
Rear	35 mm	1.375 inch
Unloader Auger System		
Unloader Drive and Driven Chain Deflection	25.4 mm	1.00 inch
Unloader Jackshaft Driven Pulley to Pulley Belt Guide Gap - Within Lower Left 45 Degree Quadrant	3.0 to 4.3 mm	0.125 to 0.172 inch
Unloader Jackshaft Driven Pulley to Pulley Belt Guide Gap - Outside 45 Degree Quadrant	3.0 to 7.0 mm	0.125 to 0.226 inch
Unloader Jackshaft Drive Pulley to Pulley Belt Guide Gap	2.8 to 3.3 mm	0.109 to 0.125 inch
Unloader Belt Tension Pulley Return Spring Length	178 mm	7.00 inch
Bottom of Pin Hole in Upper Gear Shaft to Upper Gear Box Housing	41.11 to 42.71 mm	1.625 to 1.688 inch
Upper Gearbox Backlash	1.102 to 0.152 mm	0.004 to 0.006 inch
Lower Gearbox Backlash	0.152 to 0.914 mm	0.006 to 0.036 inch
Straw Chopper Drive Adjustment Spring Length	165 mm	6.5 inch
Swing Cylinder Wiper Installation Depth	0.76 mm	0.030 inch
Grain Tank Auger Cover Clearance		
Rear Auger	90 mm	3.5 inch
Front Auger	63.5 mm	2.5 inch
1620 Chopper Drive Belt Deflection With 54 to 67 N (12 to 15 lbf)	19 mm	0.75 inch

Suggest:

If the above button click is invalid.

Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

SPECIAL TORQUES

Unloader Auger		
Unloader Auger Lower Gearbox Mounting Bolts	95 to 109 Nm	70 to 80 lb ft
Unloader Auger Swing Cylinder Piston Lock Nut	145 to 160 Nm	105 to 120 lb ft
Unloader Auger Swing Cylinder Mounting Bolts	119 to 120 Nm	80 to 90 lb ft
Unloader Auger Swing Cylinder Rod Mount to Tube	101 to 115 Nm	75 to 85 lb ft
Unloader Tube Elbow Keeper Bolts	101 to 115 Nm	75 to 85 lb ft
Corn Head		
Header Input Shaft Bearing	45 to 50 Nm	30 to 35 lb ft
Header Drive Shaft Bearing	110 to 120 Nm	80 to 90 lb ft
Header Input Shaft Sprocket	135 to 150 Nm	100 to 110 lb ft
Gatherer Shaft End Cap	45 to 55 Nm	35 to 40 lb ft
Stalk Roll Drive Bevel Gear Housing	45 to 55 Nm	35 to 40 lb ft
Gear Drive Mounting bolts - First	45 to 55 Nm	35 to 40 lb ft
Gear Drive Mounting Eyebolts - Second	110 to 120 Nm	80 to 90 lb ft
Gear Drive to Frame Allen head Screws	45 to 55 Nm	35 to 40 lb ft
Gear Drive to Frame Bolts	110 to 120 Nm	80 to 90 lb ft
Stalk Roll Point to Frame Bolts	110 to 120 Nm	80 to 90 lb ft
Stalk Roll Chain Sprocket	95 to 120 Nm	70 to 95 lb ft
Stalk Knife Bolts	115 Nm	85 lb ft
1010/1020 Header Cutter Bar Drive		
Yoke Assembly Bearing Retainer Bolts	14 to 16 Nm	10 to 12 lb ft
Wobble Shaft Spanner Nut	190 to 217 Nm	140 to 160 lb ft
Wobble Shaft and Pivot Bearing Nuts	43 to 48 Nm	32 to 35 lb ft
Wobble Shaft End Nut	203 to 230 Nm	150 to 170 lb ft
Driven Pulley	203 to 230 Nm	150 to 170 lb ft
Knife Head Bolts	325 to 339 Nm	240 to 250 lb ft
Cutter Bar Drive to Header bolts	298 to 325 Nm	220 to 240 lb ft
Header Auger Drive		
Auger Slip Clutch (New)	183 to 197 Nm	135 to 145 lb ft
Auger Slip Clutch (Used)	246 to 308 Nm	180 to 225 lb ft
Knife Drive Pulley Nut	108 to 122 Nm	80 to 90 lb ft
Elevator Drive Jackshaft		
Slip Clutch Bolts	45 to 50 Nm	33 to 37 lb ft
Sprocket Set Screws	45 to 50 Nm	33 to 37 lb ft
Jackshaft Bearing Nut	122 to 127 Nm	90 to 94 lb ft
Cleaning Fan Drive		
Fan Jackshaft Mounting Bolt	90 Nm	65 lb ft
Fan Drive Pulley Clamp Bolts	110 to 120 Nm	80 to 90 lb ft
Rock Trap		
Rotor Speed Sensor Sprocket Retaining Bolt	190 to 217 Nm	140 to 160 lb ft
Feeder and Cleaning Fan		
Gearbox Case Cover Bolts	45 to 50 Nm	33 to 37 lb ft
All Hub Assembly Bolts	45 to 50 Nm	33 to 37 lb ft
Output Shaft Lock Nut	253 to 342 Nm	185 to 250 lb ft
Rotor		
Speed Sensor Sprocket Retaining Bolts	190 to 217 Nm	140 to 160 lb ft
Speed Sensor Lock Nut	48 to 57 Nm	35 to 42 lb ft