Impeller Mower-Conditioners 1326 and 1327

JOHN DEERE

TECHNICAL MANUAL

Impeller Mower-Conditioners
1326 and 1327

TM3260 (01Jun86) English

John Deere Arc-lès-Gray
TM3260 (01Jun86)

LITHO IN U.S.A.
ENGLISH

1326 – 1327 MOWER CONDITIONERS TECHNICAL MANUAL TM 3260 (JUNE–86)

CONTENTS OF THIS MANUAL IN SECTIONS AND GROUPS

TABLEMAT-CCL101AE-200885

Section 10
GENERAL

CONTENTS OF THIS SECTION IN GROUPS

GENERAL-CCL11001AE-200885

SERVICE LITERATURE

This technical manual is part of a twin concept of service.

FOS Manuals – for reference

Technical Manuals – for actual service

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

Fundamentals of Service (FOS) Manuals cover basic theory of operation, fundamentals of trouble shooting, general maintenance, and basic types of failures and their causes. FOS manuals are for training new people and for reference to experienced technicians.

Some features of this technical manual:

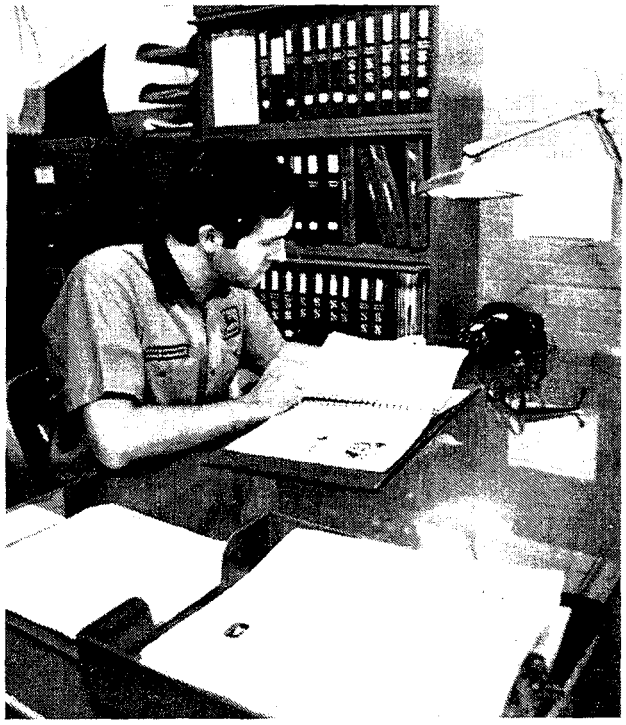
Table of contents at front of manual

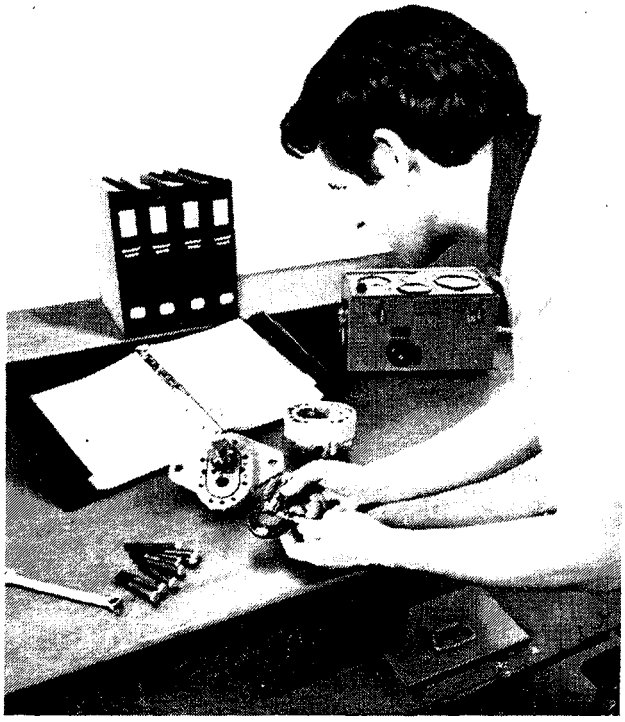
Exploded views showing parts relationship

Photos showing service techniques

This technical manual was planned and written for you – an experienced technician. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

Using the technical manual as a guide will reduce error and costly delay. It will also assure you the best in finished service work.





X2252N,X2253N-CCL11005AE-200885

SAFETY

Operator's Manuals of the relevant machines contain SAFETY rules for operation and service. Practice them to avoid ACCIDENTS.

RECOMGENE-CCL11005AE-200885

GENERAL RECOMMENDATIONS FOR DISASSEMBLY AND INSPECTION

A good working organization as well as clean tools and work bench are a must for proper repair and service.
Use adequate tools, check all parts for service-ability and replace them if necessary.
Refer to relevant FOS Manuals for diagnosing component problems.
Follow given specifications and refer to Operator's Manual for safety procedures.
Use exploded views to identify parts.
Before commencing reassembly, make sure all parts (including replacements) are available on your work bench.

RECOMGENE-CCL11005BE-200885

GENERAL SPECIFICATIONS

Refer to the operator's manual of the relevant machine.

SPECGENE-CCL11010AE-200885

GENERAL TORQUES

METRIC MEASUREMENT

Bolt Diameter (A)	Bolt Torque in Nm (ft-lb)	
	8.8	10.9
5 mm	7 (5)	9 (6.5)
6 mm	10 (8.5)	15 (10)
8 mm	30 (20)	40 (30)
10 mm	50 (35)	80 (60)
12 mm	100 (75)	140 (100)
14 mm	160 (120)	210 (155)
16 mm	240 (175)	350 (260)
20 mm	480 (355)	650 (480)
24 mm	820 (605)	1150 (850)
30 mm	1640 (1210)	2250 (1660)

NOTE: Bolts having lock nuts should be torqued to approximately 65% of amounts shown in above chart.

This chart gives the recommended torques for hardware. Refer to this chart when no specified torque is mentioned in assembly procedures.

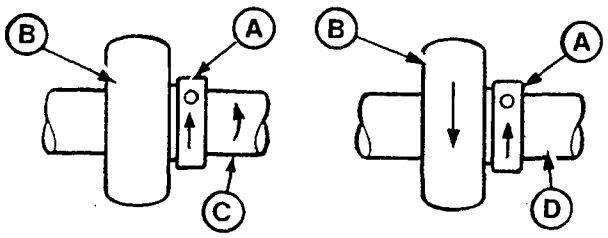
SPECGENE-CCL11005BE-200885

LOCKING COLLARS FOR SHAFT BEARINGS

Locking collars (A) on bearings (B) must be kept tight at all times.

On rotating shafts (C), locking collars (A) will have to be secured in the direction of shaft rotation.

On stationary shafts (D), locking collars (A) will have to be secured in the opposite direction of bearing (B) rotation.



CC 2636

A–Locking collar
B–Bearing
C–Rotating shaft
D–Stationary shaft

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LUBRICATION

Quality of lubricant to be used and lubrication periods depend upon operating conditions.

IMPORTANT: Refer to lubrication section of the Operator's Manual for procedure, proper oil specifications and recommended grease.

SPECGENE-CCL11020CE-200885

Section 50
POWER TRAIN – REPAIR

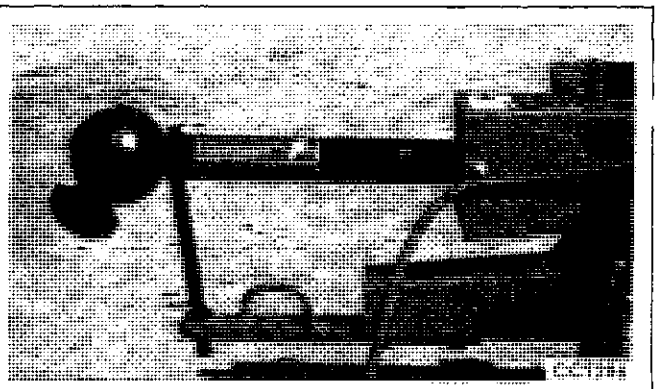
CONTENTS OF THIS SECTION IN GROUPS

TRANSTM-CCL15001AE-200885

POWR-GARD PTO DISASSEMBLY

The 1326-1327 mower conditioners are equipped with a front and a rear power line. Disassembly and re-assembly processes are identical for both parts.

CAUTION: Never connect a 540 rpm mower-conditioner to a 1000 rpm tractor.



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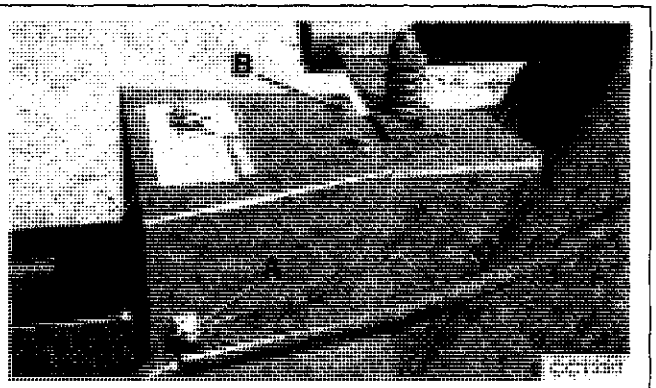
Remove PTO Shield

Remove hose clamp (A).

Remove the four cap screws (B).

Remove PTO shield (C).



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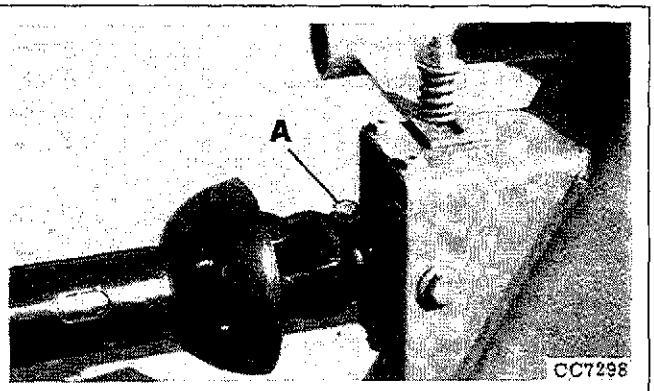
Remove PTO Hookup

Remove cap screw (A) and PTO hookup.



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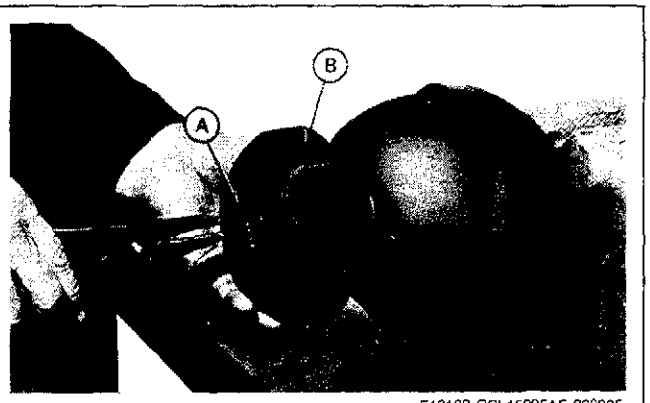
Disassemble POWR-GARD PTO

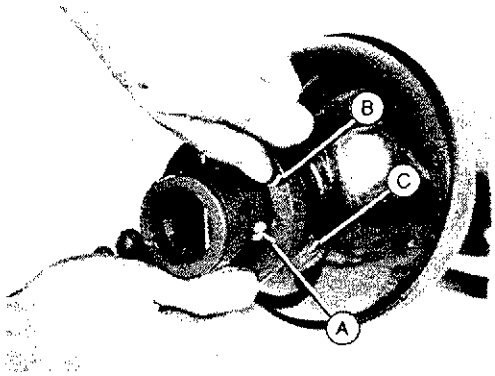
Support push collar assembly (B) and remove snap ring (A).

Remove push collar and pushbutton latch.



E12122-CCL15005AE-200885

Push back on retainer collar, remove three steel balls (A) from yoke, remove retainer collar (B) and spring (C).



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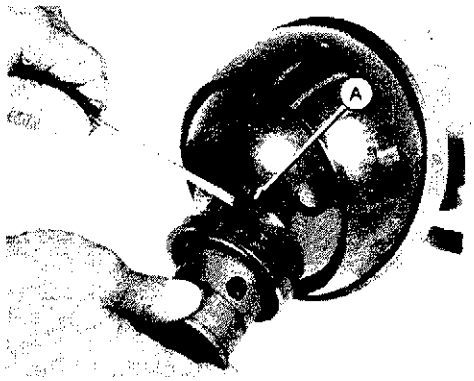
Lift locking bearings (A) up and out of assembly. Remove closure shield from yoke.



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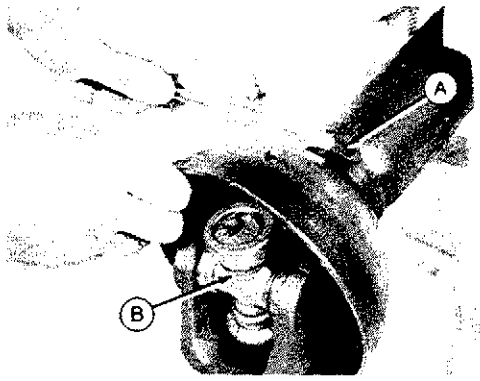
Hold in vise, positioned so shaft can't slip out.

Remove locking bearings (A) from shield.

Remove yoke and shaft assembly (B) from shield.



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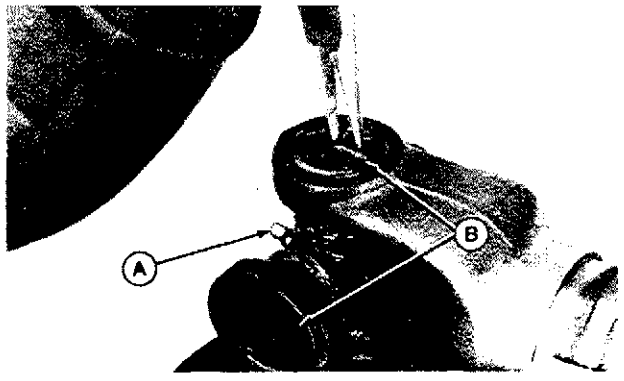
Note position of grease fitting (A) prior to disassembly so it can be properly positioned during reassembly.

Remove snap rings (B) from outside.

If snap rings stick, loosen by tapping lightly on ends of bearings with a soft brass hammer or soft brass rod.



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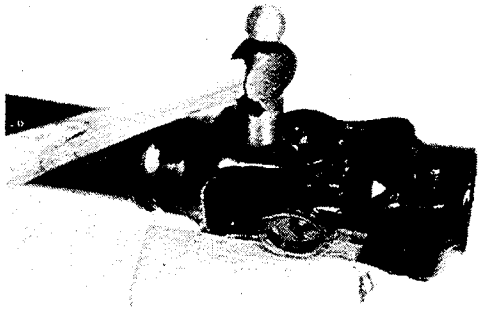
Position joint in an open vise with each ear of one yoke supported by a vise jaw.

With a soft hammer or mallet, strike the top ear of the unsupported yoke. This will drive the top bushing outward approximately 9.5 mm (3/8 in.).



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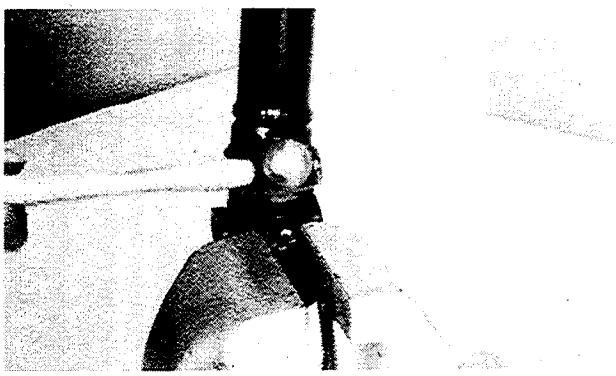
Clamp loosened bearing in vise and drive yoke off.

Repeat this procedure for removing bearing directly opposite the one just removed, after which the yoke itself may be removed.



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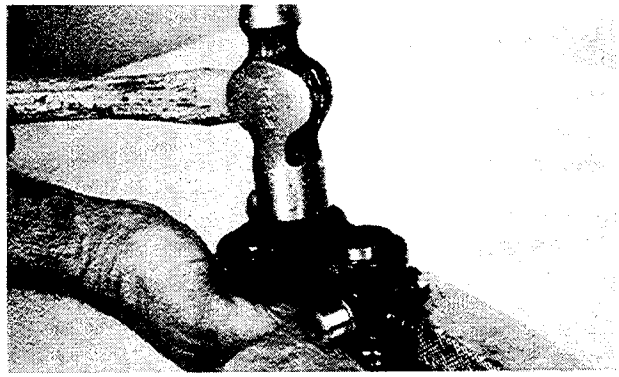
To remove remaining two bushings, support cross as shown making certain that vise jaws are covered with brass protectors. By striking yoke ear, the remaining bushings can be removed as described above.



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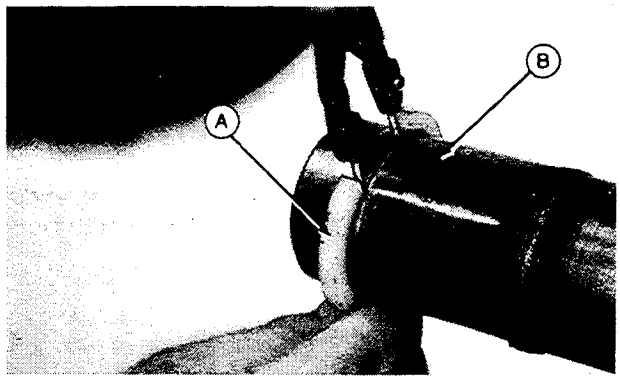
Disassemble rear section of powershaft in same manner as front section.

Remove nylon bearing (A) from yoke and tube (B).



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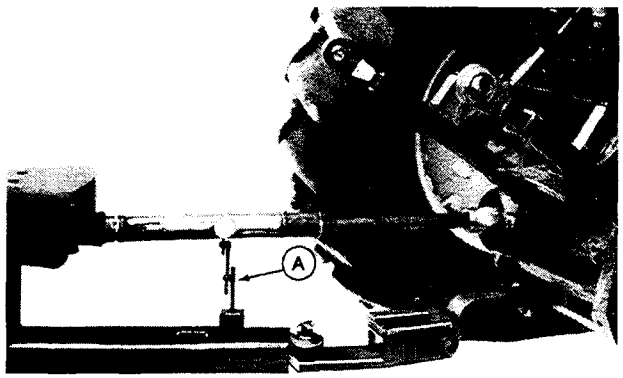
POWR-GARD PTO INSPECTION



1. Clean rust, dirt and paint from cap holders.

2. Replace spider and bearing assembly, if worn.

CAUTION: Do not start tractor while inspecting shaft for straightness.

3. Check yoke and tube, yoke and shaft for straightness using dial indicator (A). Max. run-out should be 0.90 mm (0.35 in.) in middle of hookup. If hookup is out of tolerance, straighten or replace.

4. Check shaft for roughness, nicks or pitting of surface.

5. Replace compression springs if cracked or rusted.

6. Replace nylon locking bearings if worn.

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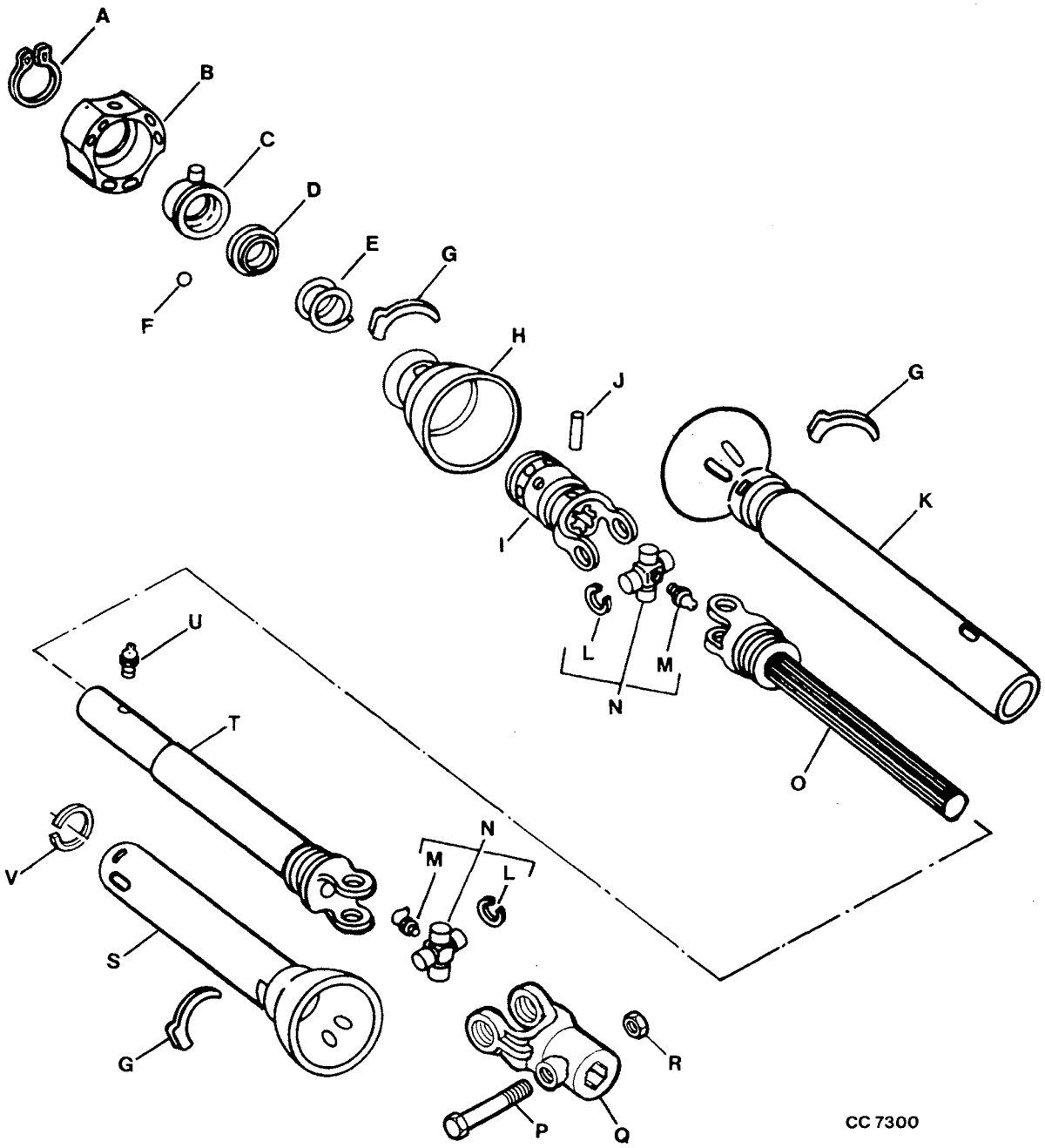
POWR-GARD PTO – EXPLODED VIEW



CC 7300

A–Snap ring
B–PTO shield
C–Latch
D–Retainer
E–Spring
F–Ball
G–Universal joint bearing
H–PTO shield
I–Universal joint yoke
J–Spring pin
K–Powershaft shield
L–Snap ring
M–Lubrication fitting
N–Cross and bearing assembly
O–Yoke with shaft
P–Cap screw
Q–Universal joint yoke
R–Nut
S–Powershaft shield
T–Yoke with shaft
U–Lubrication fitting
V–Guide

CC7300-CCL15005AE-200885

POWR-GARD PTO REASSEMBLY

Reassemble joints. Start one bearing in yoke. Position center spider (A) through yoke.

Press bearing into yoke until flush with surface.

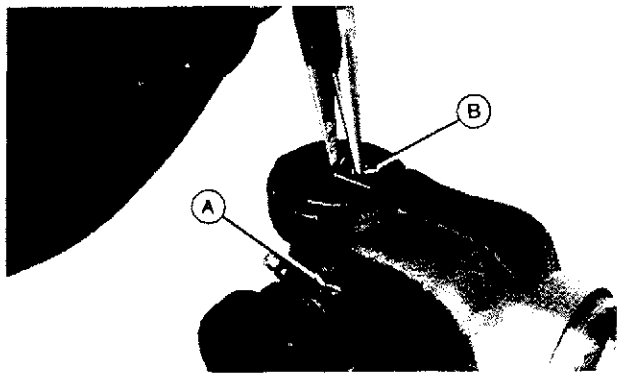
Clamp yoke in vise. Use a punch or socket with slightly smaller diameter than that of bearing and press bearing past snap ring groove.

Install snap ring (B).

Position cross and install bearing on opposite side.

Properly position grease fitting to allow greasing before installing third and fourth bearing.

Assemble remaining bearings and lubricate.



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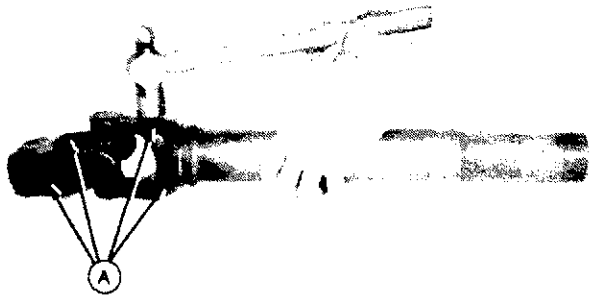
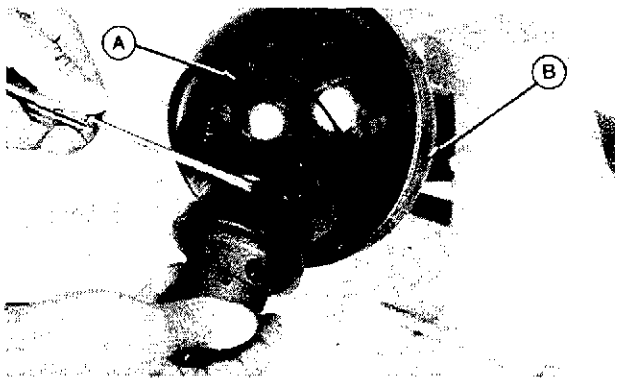
If joint is stiff and does not flex freely after assembling, strike each ear of yoke on radius (A) to relieve pressure.



E18749-CCL15005AE-200885

Install closure shield assembly (A), shield (B) and shield bearings.

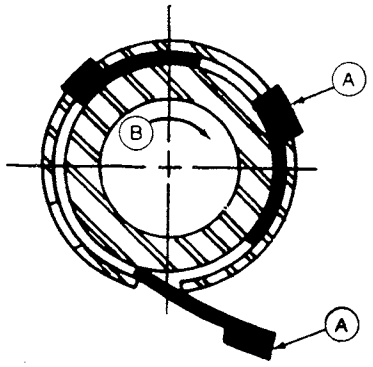


E18300-CCL15005AE-200885

NOTE: Apply grease to bearing grooves.

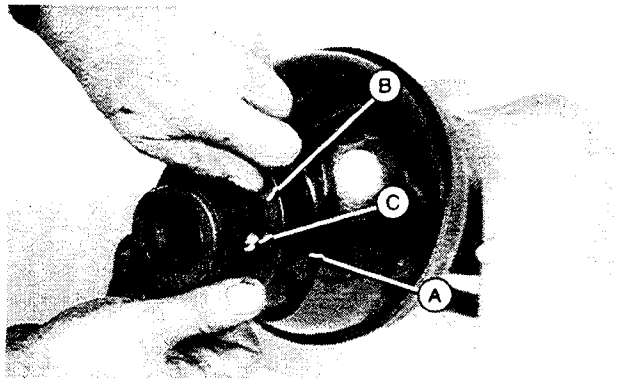
Install bearings (A) to retain shield as shown.

A–Locking bearings
B–Direction of shaft rotation



E18303-CCL15005AE-200885

Install spring (A), retainer collar (B), and steel balls on yoke.



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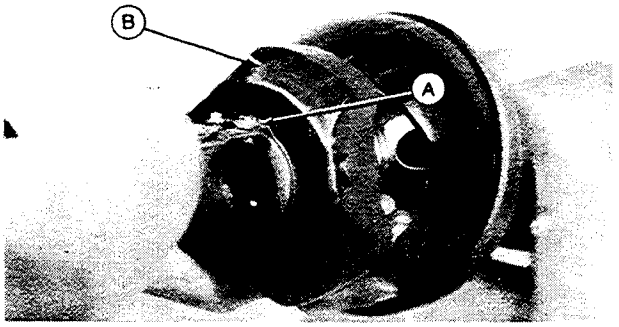
Slide push button collar assembly (B) on yoke and secure with snap ring (A).



E18302-CCL15005AE-200885

POWR-GARD PTO REINSTALLATION

Reverse POWR-GARD PTO removal and disassembly steps for reinstallation.

ARBRES-CCL15005AE-200885

BONDIOLI PTO DISASSEMBLY

1326 and 1327 mower-conditioners are equipped with a front and a rear power line. Disassembly and re-assembly processes are identical for both parts.

CAUTION: Never connect a 540 rpm mower-conditioner to a 1000 rpm tractor.

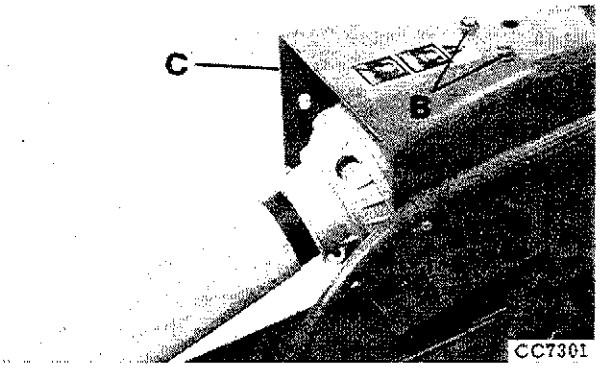
ARBRES-CCL15005BE-200885

Remove PTO Shield

Remove hose clamp (A).

Remove the two upper and lower cap screws (B).

Remove drive shield (C).



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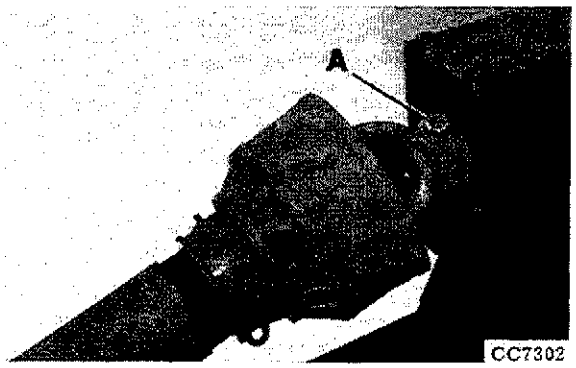
Remove PTO Hookup

Remove cap screw (A) and PTO hookup.



CC7302-CCL15005AE-200885

PTO SHIELD DISASSEMBLY

Keep cone pressed downward and release catches by pushing with a screwdriver.

CC7303-CCL15005AE-200885

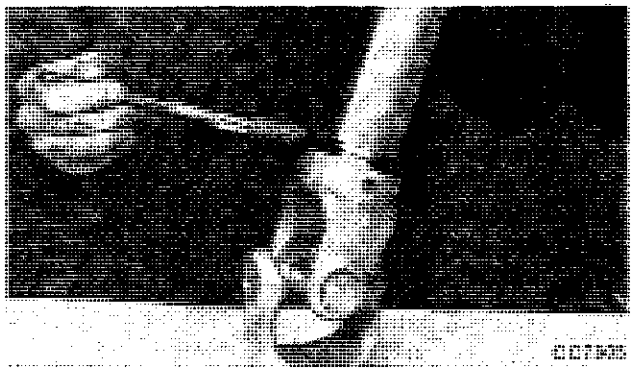
Remove Half Tube

Open bearing ring to remove half tube.

CC7304-CCL15005AE-200885

PTO SHIELD REASSEMBLY

Grease bearing ring groove.



CC7305-CCL15005AE-200885

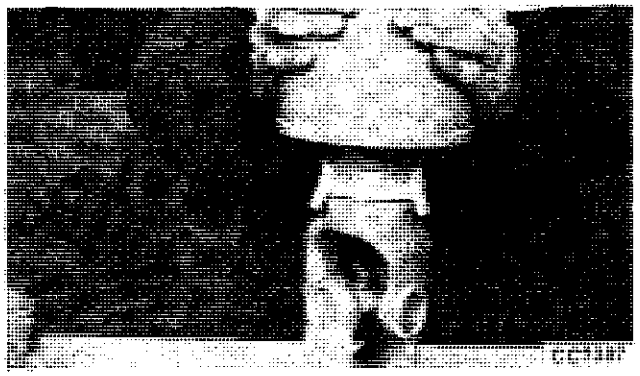
Reinstall Shield Tube

Fit shield tube onto bearing ring by centering the holes over the catches.

CC7306-CCL15005AE-200885

Reinstall Cone Shield

Fit cone centering grease fitting to grease filling hole on bearing ring. Press to connect.



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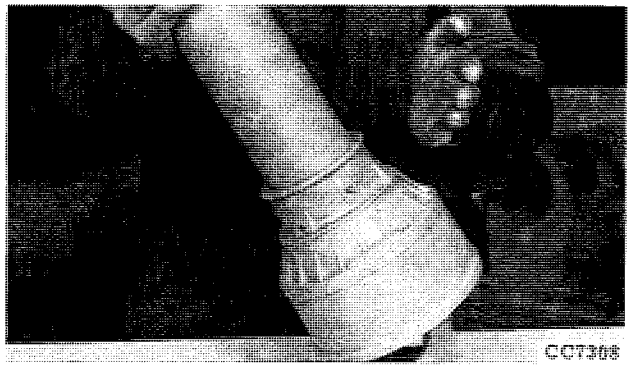
Check Assembly

Make sure that catches are properly engaged by tapping on cone.



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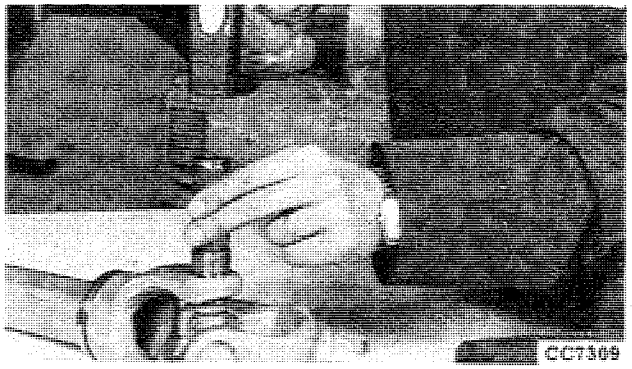
PTO HOOKUP DISASSEMBLY

Remove PTO shield.

Press on snap ring.



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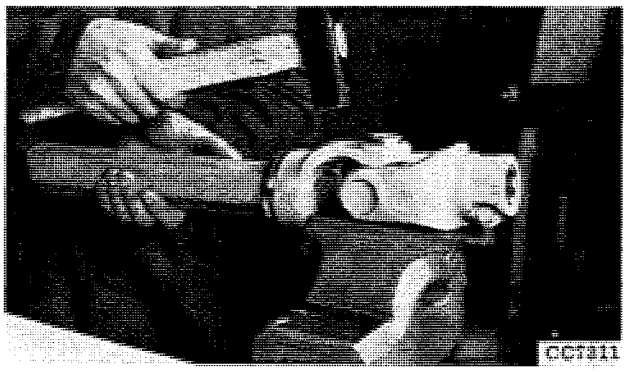
Remove Snap Ring

Remove snap ring with snap ring pliers.

CC7310-CCL15005AE-200885

Remove Bearing

Remove the first bearing from the ear.



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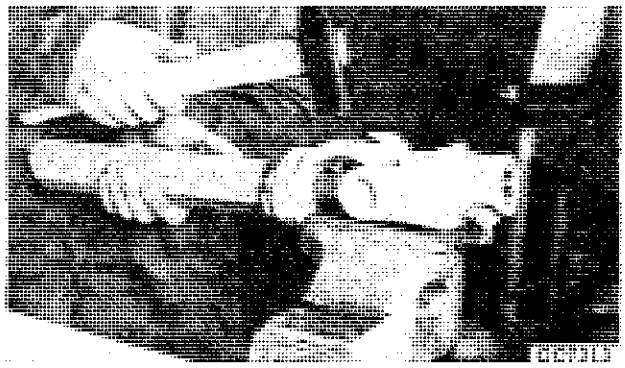
Remove First Bearing

Complete removal of first bearing.

CC7312-CCL15005AE-200885

Remove Snap Ring

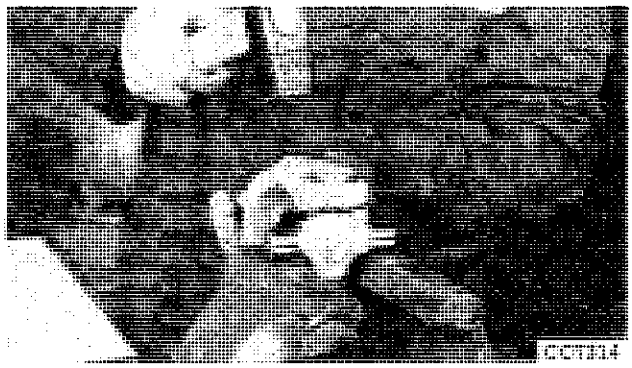
After removing snap ring, remove the second bearing.



CC7313-CCL15005AE-200885

Remove Second Bearing

Remove bearings of outer yoke.



CC7314-CCL15005AE-200885

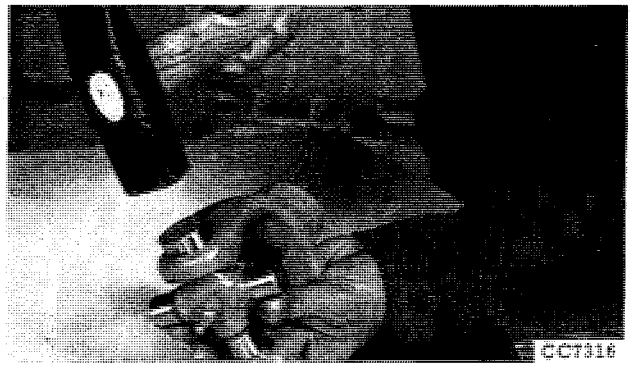
PTO HOOKUP REASSEMBLY

Grease the inside of the bearings to hold the needles in place.

CC7315-CCL15005AE-200885

Install First Bearing

Push first bearing in the ear. Hold the needles in place using the journal arm.



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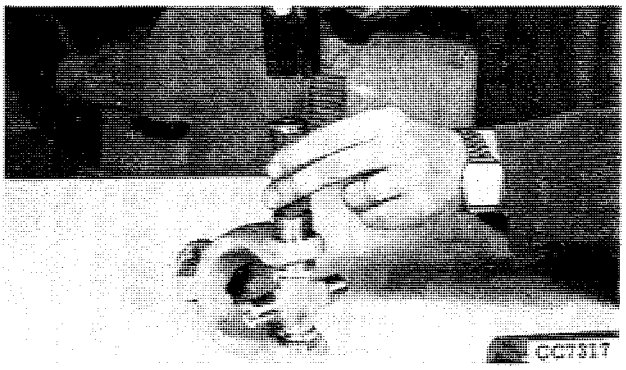
Install Second Bearing

Repeat the whole process for the second bearing. Adjust bearing position and insert both snap rings.



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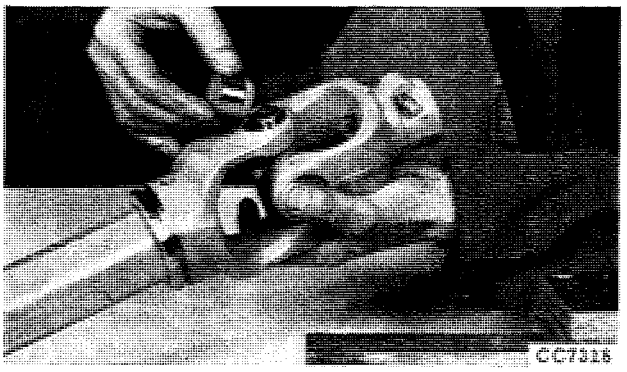
Install Inner Yoke Bearing

Install inner yoke bearings. Make sure that the grease fitting faces the inner yoke.



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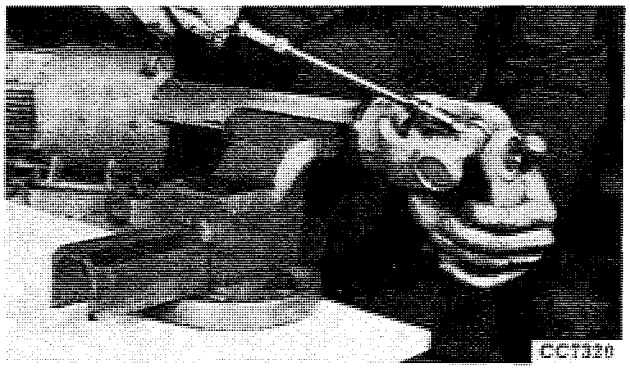
Adjust Bearing Position

Adjust the position of the bearings and insert both snap rings. Tap the ear base lightly to fully seat the snap rings and loosen the joint.

CC7319-CCL15005AE-200885

Grease Bearings

Grease the assembly. Pump grease until grease escapes through all four bearings.



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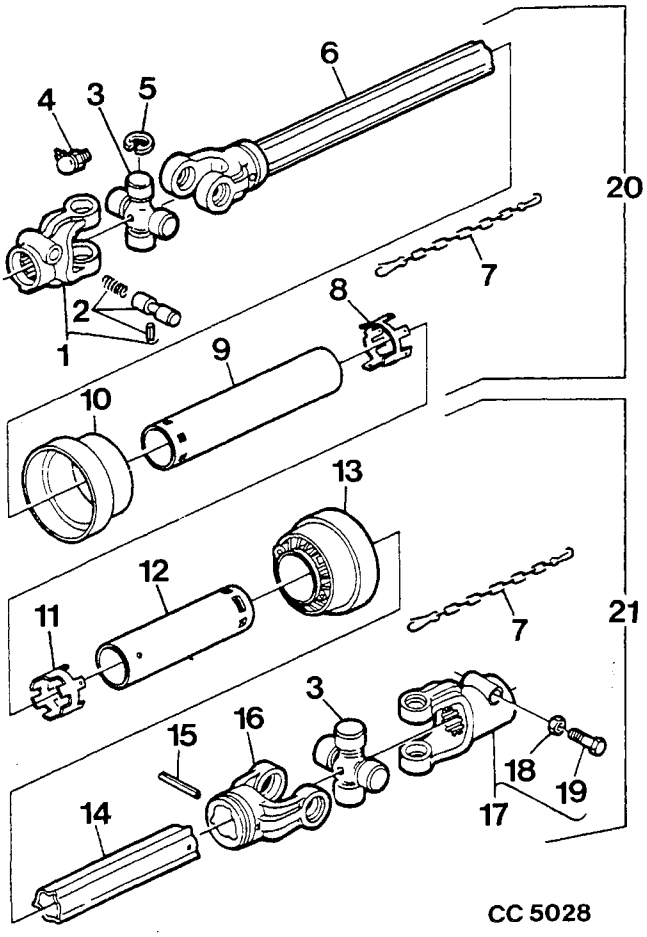
BONDIOLI PTO – EXPLODED VIEW

1–Universal joint yoke
2–Latch
3–Universal joint cross
4–Lubrication fitting
5–Snap ring
6–Yoke, with shaft
7–Link chain
8–Bearing
9–Guard
10–Guard
11–Bearing
12–Guard
13–Guard
14–Drive shaft
15–Spring pin
16–Universal joint yoke
17–Yoke
18–Nut
19–Cap screw
20–Universal drive shaft
21–Universal drive shaft



CC 5028

CC5028-CCL15005AE-200885

SPECIFICATIONS

1326

ITEMS	MEASUREMENT	WEAR TOLERANCE
Lining (2 used), Oil soaked		minimum thickness = 2 mm (0.08 in.)
Spring length adjustment	36 mm ± 0.8 mm (1.41 in. ± 0.03 in.)	

1327

Lining (4 used), Oil soaked		minimum thickness = 2 mm (0.08 in.)
Spring length adjustment	40 mm ± 0.8 mm (1.57 in. ± 0.03 in.)	

LIMICOU-CCL15010AE-200885

DESCRIPTION

For both 1326 and 1327, the slip clutch transmits power between the power line and the gear case. If there is excessive power, the slip clutch acts as a safety device and slips to avoid damage to power train parts.

Slip clutch springs must be adjusted to the specified length.

A one way free wheel is incorporated into the slip clutch. This allows relative speed between gear case and power line especially when the machine is being stopped.

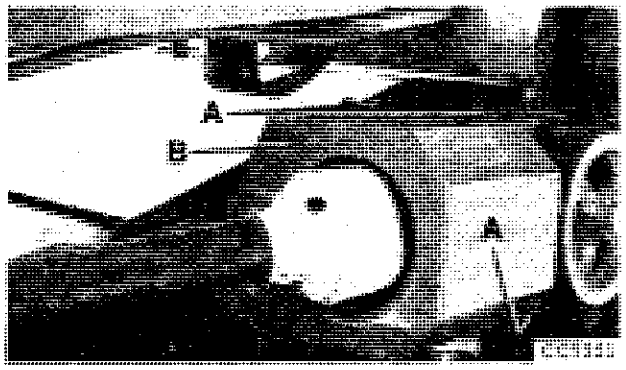
LIMICOU-CCL15010BE-200885

SLIP CLUTCH REMOVAL (1326 and 1327)

Remove slip clutch shield.

Remove the four cap screws (A).

Remove slip clutch shield (B).

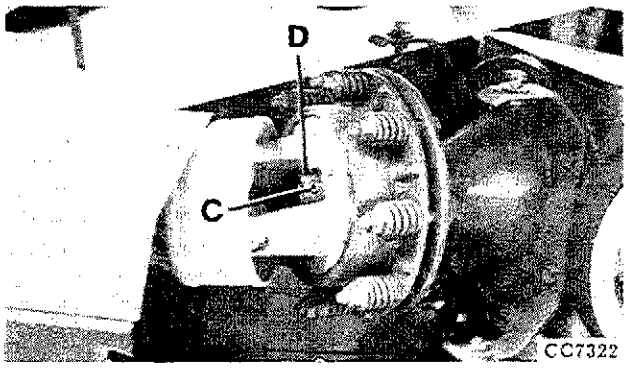


CC7321-CCL15010AE-200885

Disconnect PTO Hookup

Remove spring pin (C).

Remove bushing (D).

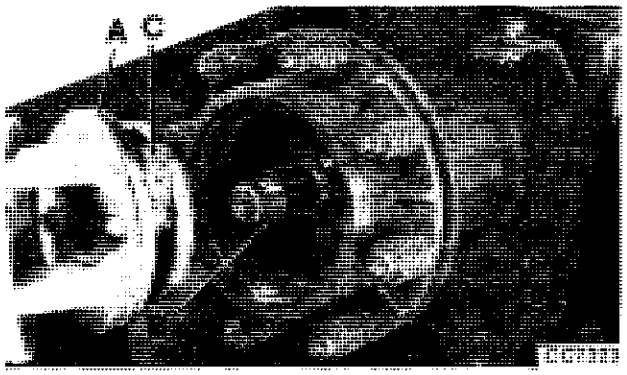


CC7322-CCL15010AE-200885

Remove PTO Hookup

Pull out clutch yoke (A) from the clutch. Note the position of pawls (C) for proper re-installation.

Do not discard washers (B).

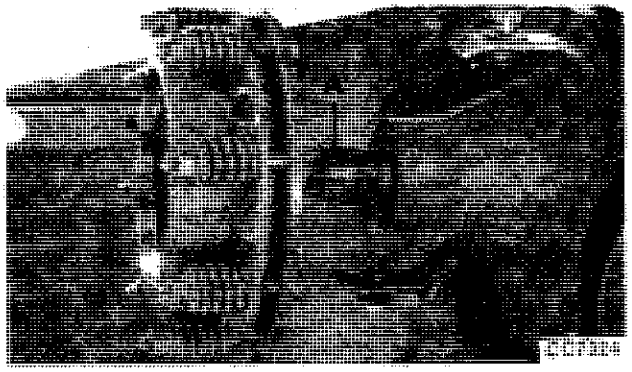


CC7323-CCL15010AE-200885

Remove Slip Clutch

Pull out the slip clutch from the main shaft.

Remove bushing (A).



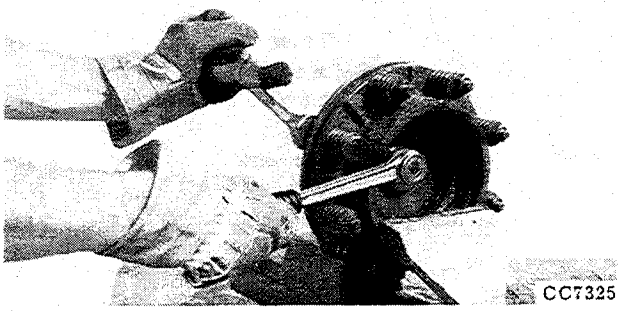
CC7324-CCL15010AE-200885

SLIP CLUTCH DISASSEMBLY

Remove the eight nuts.

Remove the eight cap screws.

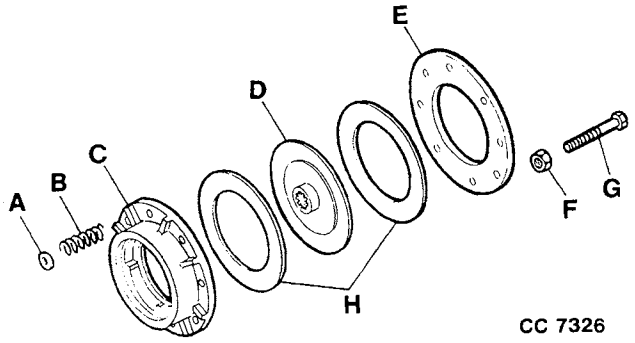
Disassemble slip clutch.



CC7325-CCL15010AE-200885

1326 SLIP CLUTCH, EXPLODED VIEW

A–Washer
B–Spring
C–Clutch plate
D–Clutch hub
E–Clutch plate
F–Nut
G–Cap screw
H–Lining

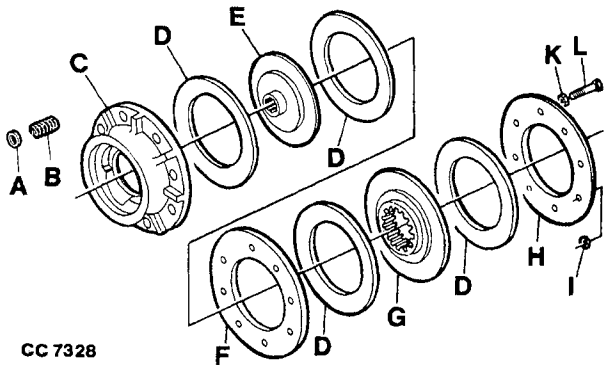


CC 7326

CC7326-CCL15010AE-200885

1327 SLIP CLUTCH, EXPLODED VIEW

A–Washer
B–Spring
C–Clutch plate
D–Lining
E–Clutch disk
F–Clutch disk
G–Clutch disk
H–Clutch disk
I–Washer
J–Nut
K–Cap screw



CC 7328

CC7328-CCL15010AE-200885

SLIP CLUTCH INSPECTION

Replace parts if cracked or damage from heat is apparent. Replace lining if warped, cracked or worn down to the specified thickness.
Check disks for straightness.
Check lining for glazing.

IMPORTANT: New linings are oil soaked, do not clean.

LIMICOU-CCL15010CE-200885

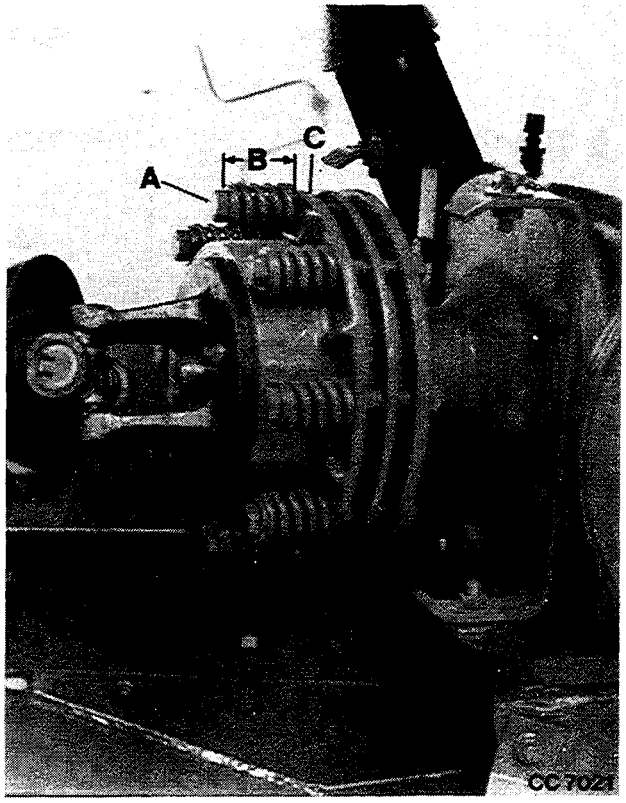
SLIP CLUTCH REASSEMBLY AND REINSTALLATION

Reverse disassembly and removal procedure for slip clutch reassembly and reinstallation.

LIMICOU-CCL15010DE-200885

SLIP CLUTCH ADJUSTMENT

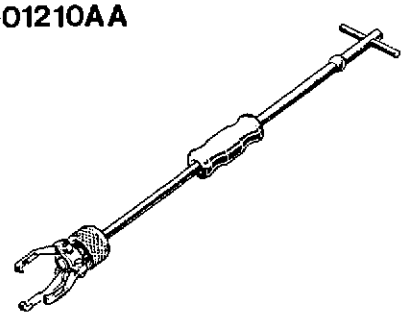
Turn nut (A) until the specified spring length (B) is obtained.



CC7021-CCL15010AE-200885

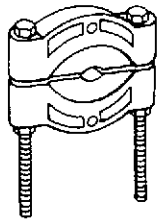
SPECIAL TOOLS

D-01210AA



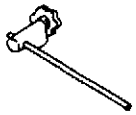
(A)

D-01267A



(B)

D-17525CI

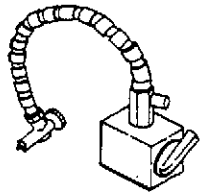


(C)

D-17526CI

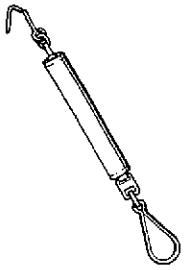
(D)

D-17517CI



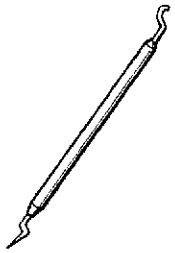
(E)

JDG-94



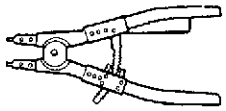
(F)

JDH-6



(G)

JDG-114



(H)

CC 7504

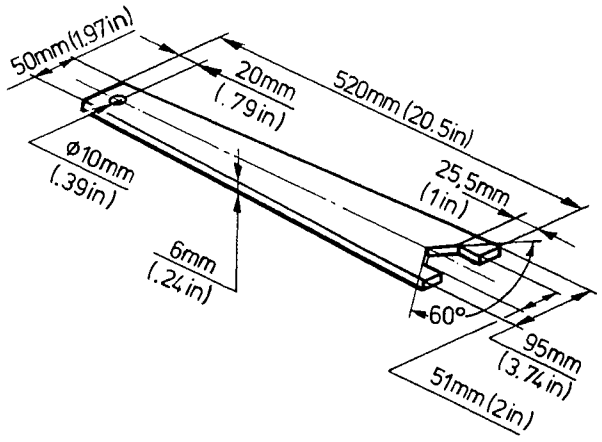
A–To remove bearings
B–To remove bearings
C–To measure gear backlash
D–To measure gear backlash
E–To measure gear backlash
F–To measure torque
G–To remove O–ring
H–To remove snap ring

CC7504-CCL15020AE-200885

SELF-MANUFACTURED TOOLS

Wrench

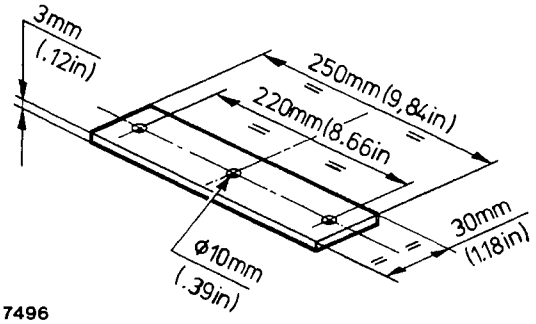
To loosen lock nut of cutterbar shaft.



Adjustment plate

To measure bearing preload.
To measure gear backlash.

NOTE: Use medium iron for both tools.



CC 7496

CC7496-CCL15020AE-200885

SPECIFICATIONS

ITEMS	DIMENSIONS OF NEW PARTS
1326–1327 Maximum misalignment of impeller drive pulley	2.4 mm 0.094 in.
1326–1327 Spring deflection for belt drive idler	80 mm 3.15 in.
1326 Press measurement of cutterbar drive quill bearing lip seal	0.2 mm (+ 0.2 mm; - 0 mm) 0.008 in. (+ 0.008 in.; - 0 in.)
1326–1327 Axial play for cutterbar drive quill bearing	0.03 to 0.07 mm 0.00118 to 0.00275 in.
1326–1327 Impeller drive bearing preload torque	0.6 to 1.1 Nm 0.44 to 0.81 ft-lb
1326–1327 Primary drive bearing preload torque	1.1 to 2 Nm 0.81 to 1.48 ft-lb
1326–1327 Impeller plain bevel gear backlash	0.13 to 0.18 mm 0.0051 to 0.007 in.
1326–1327 Primary drive spiral bevel gear backlash	0.10 to 0.35 mm 0.0039 to 0.013 in.
1326 – Nominal shim thickness for primary drive, cutterbar drive and impeller drive covers and quill bearings	1 mm 0.004 in.
1327 – Nominal shim thickness for primary drive, cutterbar drive and impeller drive covers and quill bearings	1.5 mm 0.006 in.

RENVOI-CCL15020AE-200885

ASSEMBLY ACCESSORIES

1326–1327 Sealing compound for bearing surfaces of quill bearing and gear case	Permatex Form-A-Gasket No. 2 or equivalent
1327 – Thread lock for the ten cap screw securing spiral bevel gear on its hub	Loctite 270 or equivalent
1326 – Adhesive sealing compound for the lip seal of the cutterbar drive	Loctite 242 and activator T or equivalent
1326 – Sealing compound for lip seals of primary drive and impeller drive	Permatex Form-A-Gasket No. 2 or equivalent
1327 – Sealing compound for lip seals of cutterbar drive, impeller drive and primary drive	Permatex Form-A-Gasket No. 2 or equivalent
Bearing grease	Mobilux 2 or equivalent

RENVOI-CCL15020BE-200885

TORQUES FOR HARDWARE

1326–1327 Cap screws securing gear case to its bracket	230 ± 15 Nm (169 ± 11 ft-lb)
1326–1327 Cap screws securing primary drive, cutterbar drive, impeller drive to gear case	See general chart
1327 – Hex. socket screws securing spiral bevel ring gear to its hub	41 Nm (30 ft–lb)
1326–1327 Lock nut of nut on cutterbar drive shaft	125 ± 12 Nm (92 ± 9 ft-lb)
1326–1327 Gear case fill–and–drain plug	30 Nm (22 ft–lb)

RENVOI-CCL15020CE-200885

GEAR CASE DESCRIPTION

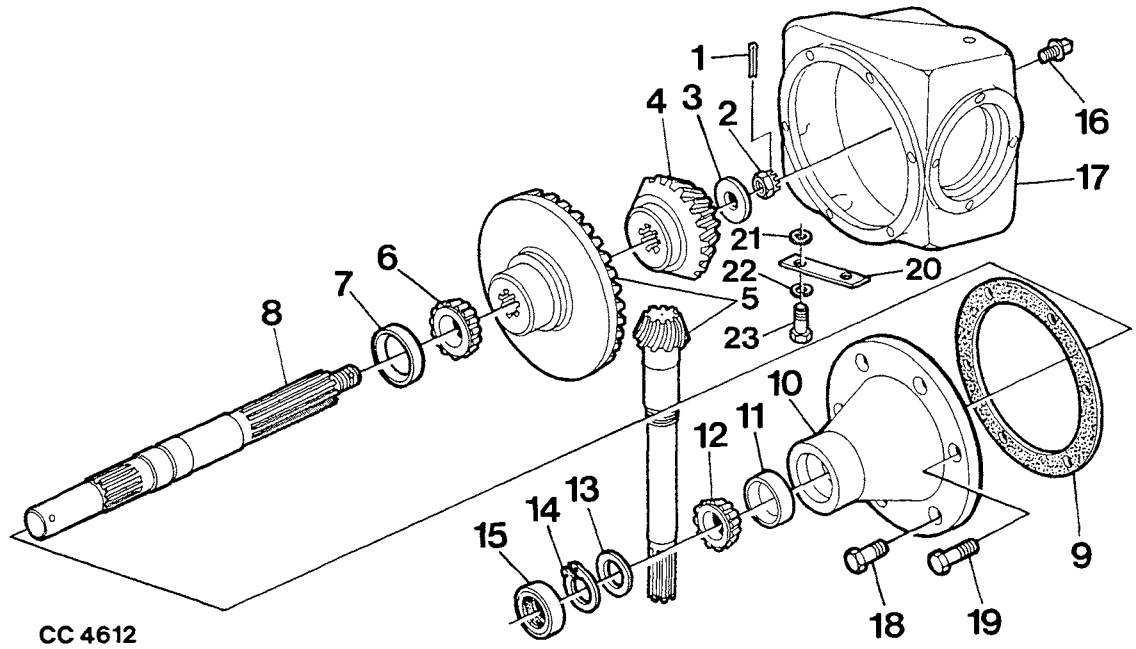
The gear case has three shafts with identical functions for the two machines:

–Primary drive shaft (input shaft)
–Cutterbar drive shaft
–Impeller drive shaft

The primary drive shaft, connected with the power-line, drives the cutterbar drive shaft by means of a spiral bevel gear set (these gears are matched) and also drives the impeller by means of a plain bevel gear set (these gears are not matched).

RENVOI-CCL15020DE-200885

1326 – PRIMARY DRIVE, EXPLODED VIEW



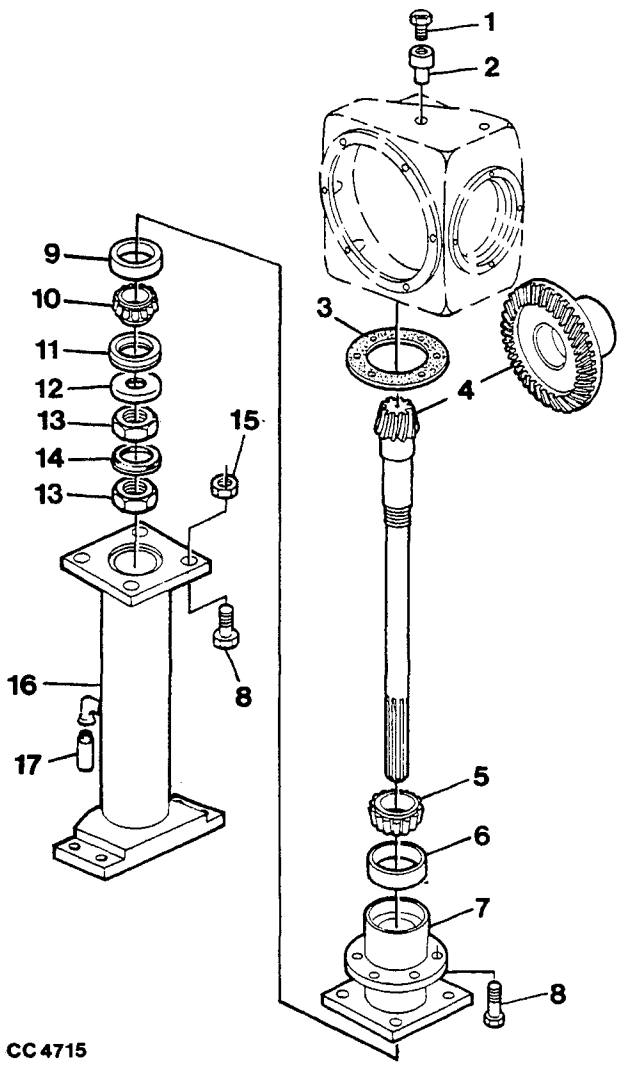
CC 4612

1–Cotter pin
2–Nut
3–Washer
4–Plain bevel gear
5–Spiral bevel gear
6–Bearing cone
7–Bearing cup
8–Drive shaft
9–Shim
10–Quill
11–Bearing cup
12–Bearing cone
13–Washer
14–Snap ring
15–Seal
16–Pipe plug
17–Case
18–Cap screw
19–Cap screw
20–Plate
21–Washer
22–Lock washer
23–Cap screw

CC4612-CCL15020AE-200885

1326 – CUTTERBAR DRIVE, EXPLODED VIEW

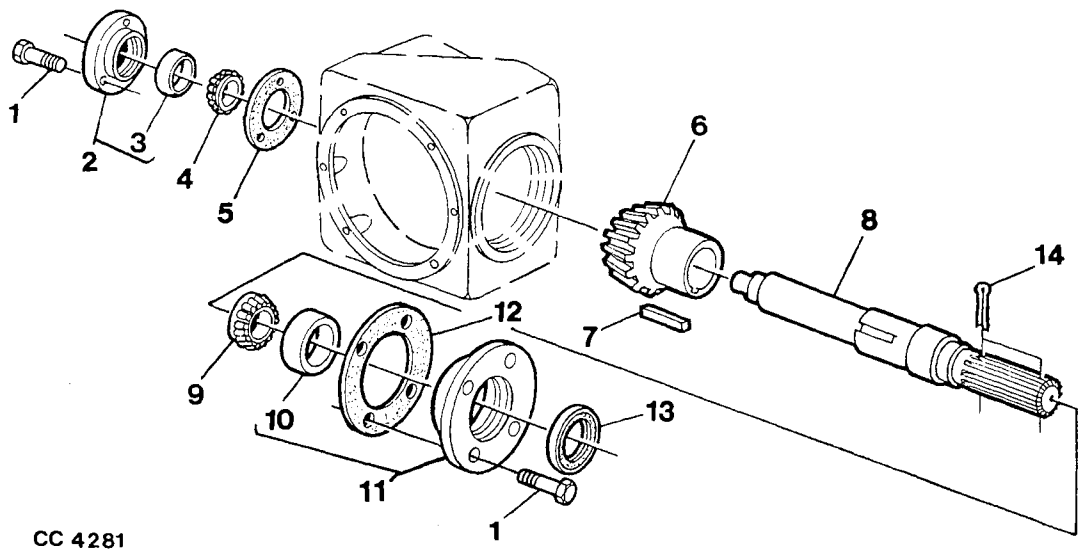
1–Vent
2–Coupling
3–Shims
4–Spiral bevel gear
5–Bearing cone
6–Bearing cup
7–Quill bearing
8–Cap screw
9–Bearing cup
10–Bearing cone
11–Lip seal
12–Conical washer
13–Nut
14–Oil slinger
15–Nut
16–Tube support
17–Tube



CC 4715

CC4715-CCL15020AE-200885

IMPELLER DRIVE, EXPLODED VIEW

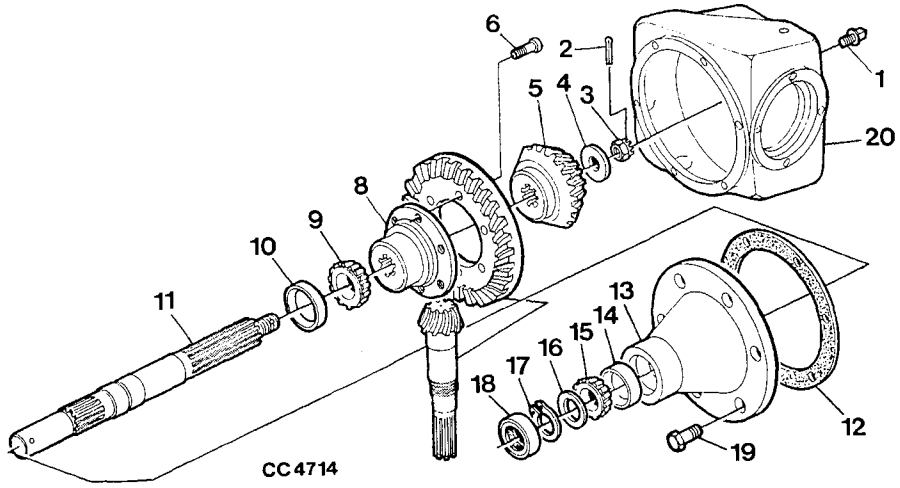


CC 4281

1–Cap screw
2–Cover
3–Bearing cup
4–Bearing cone
5–Shim
6–Plain bevel gear
7–Shaft key
8–Drive shaft
9–Bearing cone
10–Bearing cup
11–Cover
12–Shim
13–Seal
14–Cotter pin

CC4281-CCL15020AE-200885

1327 – PRIMARY DRIVE, EXPLODED VIEW



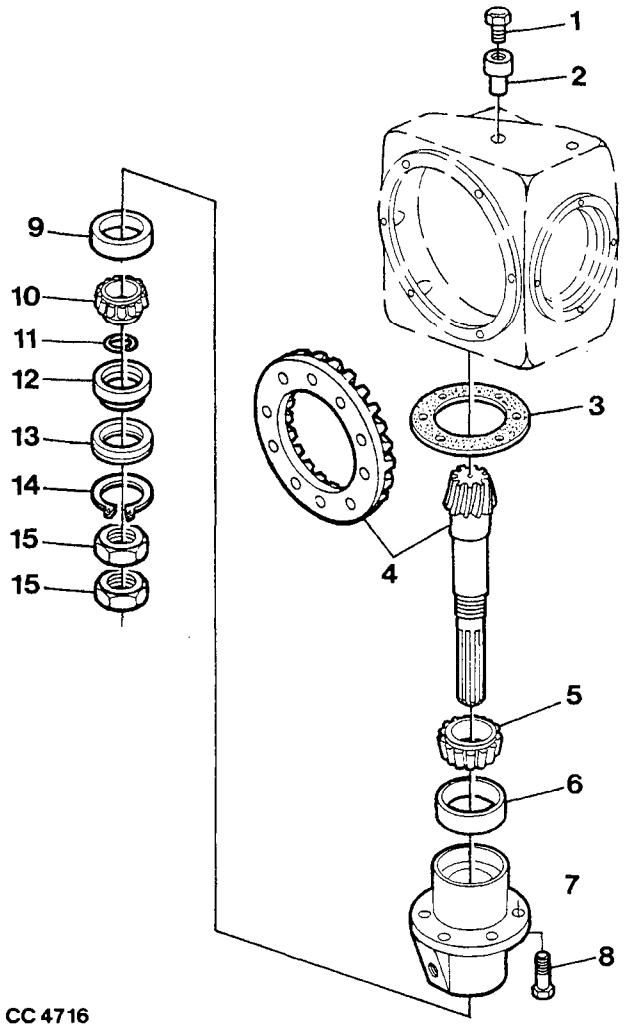
CC4714

1–Pipe plug
2–Cotter pin
3–Nut
4–Washer
5–Plain bevel gear
6–Cap screw
7–Spiral bevel gear
8–Hub
9–Bearing cone
10–Bearing cup
11–Drive shaft
12–Shim
13–Quill
14–Bearing cup
15–Bearing cone
16–Washer
17–Snap ring
18–Seal
19–Cap screw
20–Case

CC4714-CCL15020AE-200885

1327 – CUTTERBAR DRIVE, EXPLODED VIEW

1–Vent
2–Coupling
3–Shim
4–Spiral bevels
5–Bearing cone
6–Bearing cup
7–Quill
8–Cap screw
9–Bearing cup
10–Bearing cone
11–O-Ring
12–Bushing
13–Lip seal
14–Snap ring
15–Nut



CC 4716

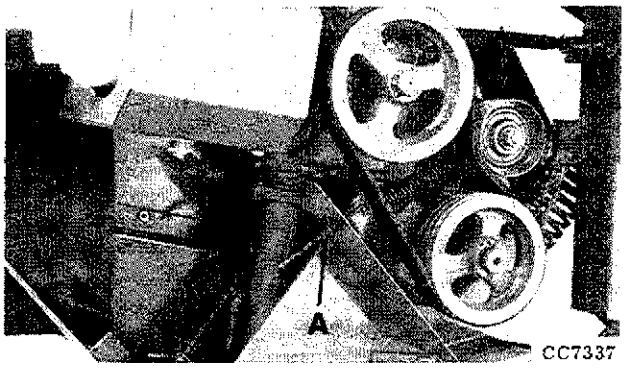
CC4716-CCL15020AE-200885

GEAR CASE REMOVAL

Release Idler Tension

Put the machine in raised position and engage safety stops.

Remove nuts (A) to release idler tension.



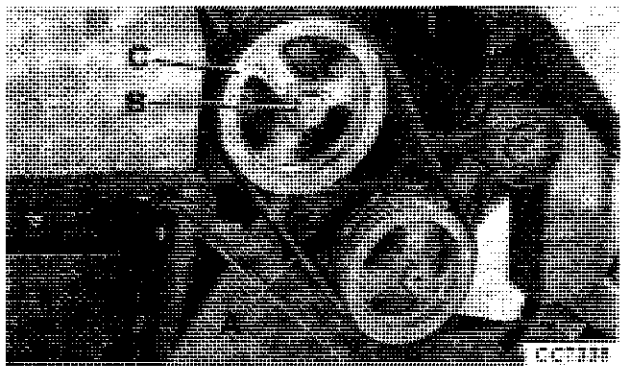
CC7337-CCL15020AE-200885

Remove Impeller Drive Pulley

Remove drive belt (A) (groove by groove).

Remove cotter pin (B) and washers.

Remove pulley (C).



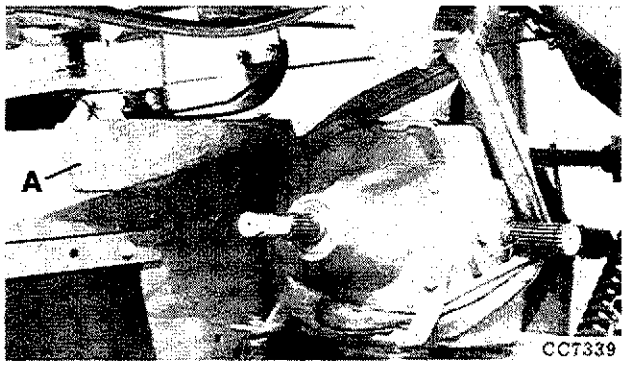
CC7338-CCL15020AE-200885

Secure Gear Case

Remove slip clutch (see relevant group).

Install a piece of wood (A) between stop and platform to keep it in low position.

Secure gear case as shown.



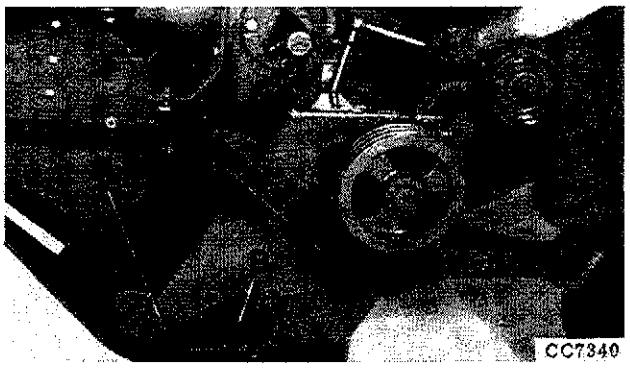
CC7339-CCL15020AE-200885

Loosen Gear Case Bottom

Thoroughly clean the gear case bottom area (B).

Remove the five self-locking nuts (A).

NOTE: For convenience, use access port to remove nuts.



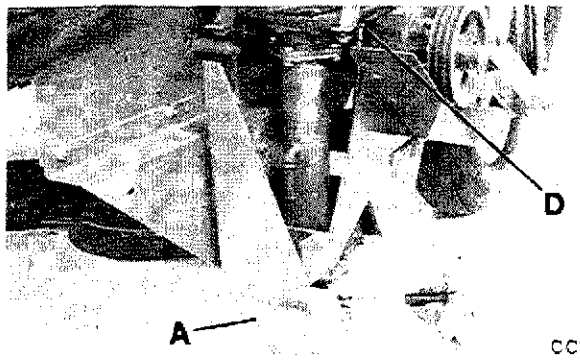
CC7340-CCL15020AE-200885

Loosen Upper Gear Case

Pivot down L.H. skid shoe (A).

Remove the two cap screws (D), lock washers and plate securing gear case to bracket.

NOTE: For convenience, use the lower access port.



CC7341-CCL15020AE-200885

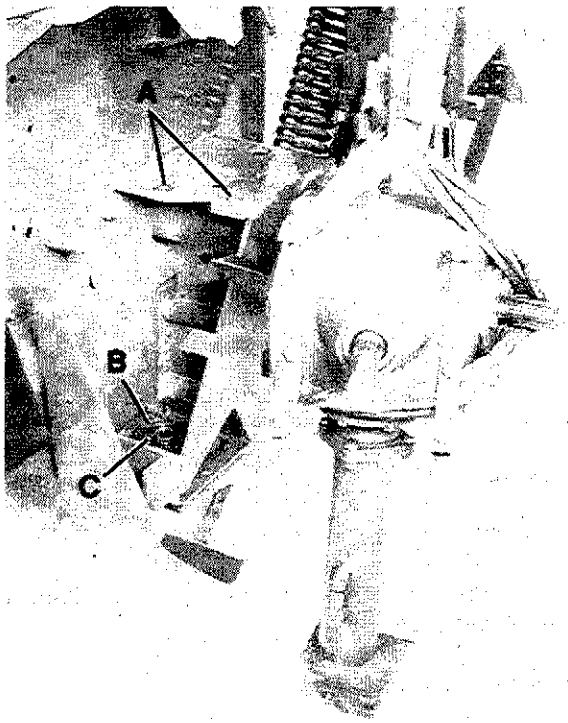
Remove Gear Case from Machine

Lift up and remove gear case.

Remove and keep washers (A).

Reinstall a new O-ring (B) (coated with oil) on cutterbar. Keep bearing area (C) clean.

Drain gear case if necessary (see operator's manual).

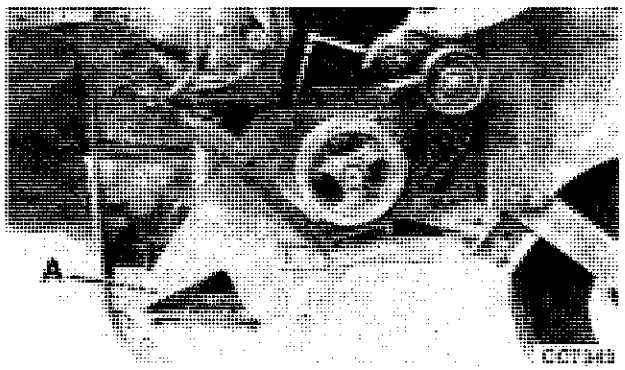


CC7342-CCL15020AE-200885

GEAR CASE REINSTALLATION

Sling the gear case and reinstall it.

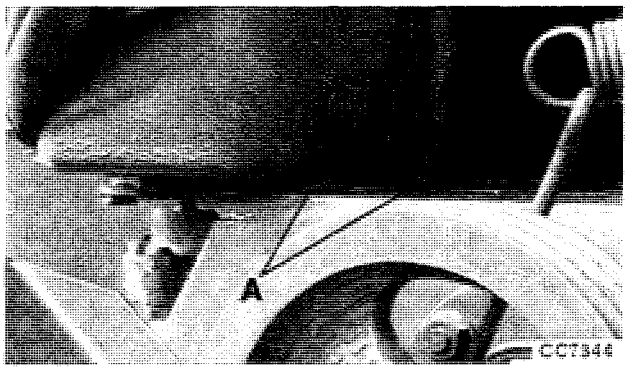
Tighten the five self–locking nuts (A) of the gear case bottom.



CC7343-CCL15020AE-200885

Shim Gear Case on Bracket

Install washers (A) as needed to correctly shim the gear case on bracket.

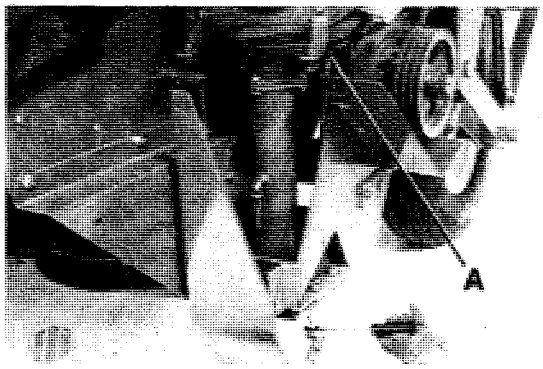


CC7344-CCL15020AE-200885

Bolt Gear Case to Bracket

Reinstall the plate, the two lock washers and the two cap screws (A) under the bracket.

NOTE: Do not tighten cap screws at this stage.



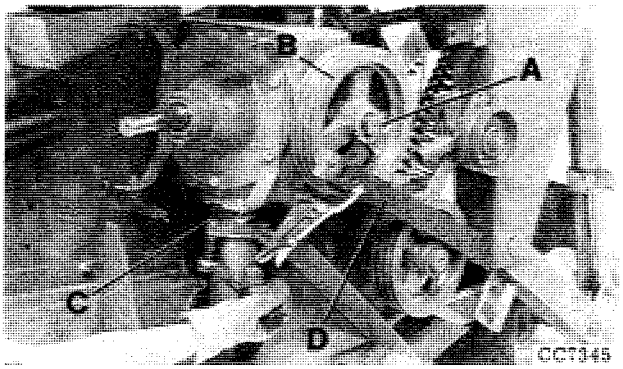
CC7351-CCL15020AE-200885

Adjust Pulley Parallelism

Grease shaft (A) and install drive pulley (B).

Clamp a straight iron bar (D) on the drive pulley. Check and adjust parallelism of pulley by loosening the four cap screws (C) to pivot gear case to centerline of cutterbar drive pulley.

Tighten the four cap screws and nuts (C).

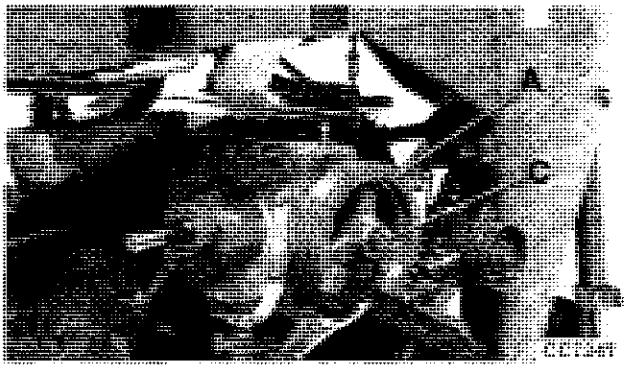


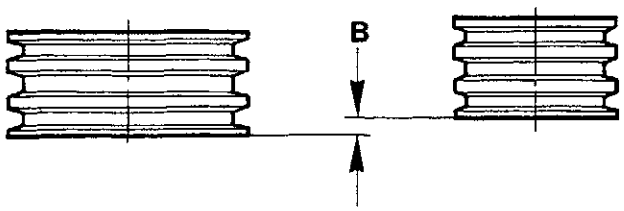
CC7345-CCL15020AE-200885

Adjust Pulley Alignment

Add or remove washers behind pulley (A) not to exceed the specified dimension (B).

Install cotter pin (C).





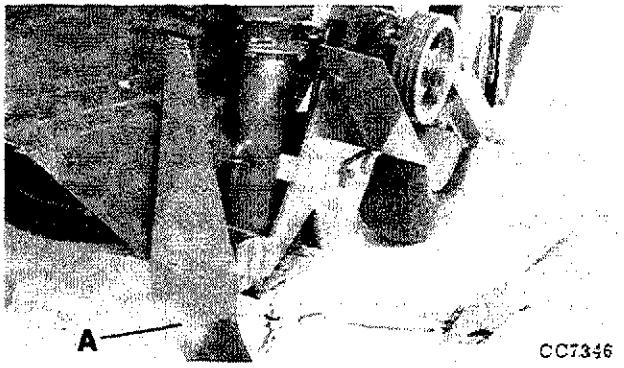
CC 7499

CC7347,CC7499-CCL15020AE-200885

Secure Gear Case

Tighten the two cap screws securing gear case to bracket to specified torque.

Reinstall skid shoe (A).



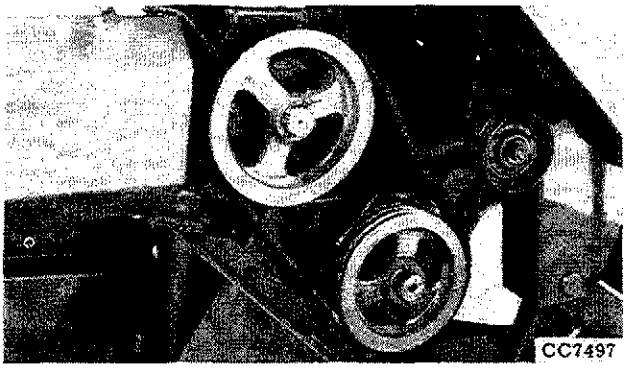
CC7346-CCL15020AE-200885

Reinstall Drive Belt and Slip Clutch

Reinstall drive belt (groove by groove).

Reinstall slip clutch (see relevant group).

Remove the piece of wood between platform and stop.

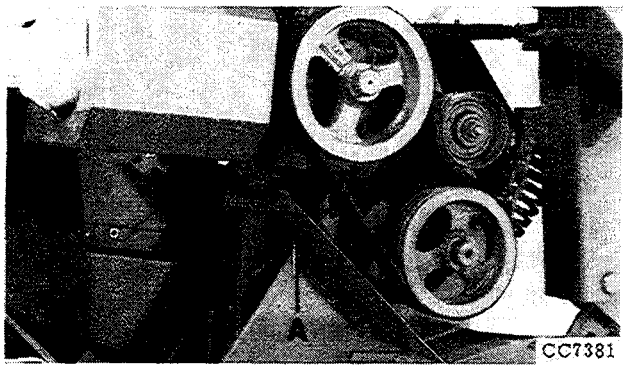


CC7497-CCL15020AE-200885

Reinstall Idler Pulley

Reinstall idler eyebolt and tighten nut (A) until specified spring deflection is obtained. Tighten lock nut.

Fill the gear case with oil if necessary (see operator's manual).



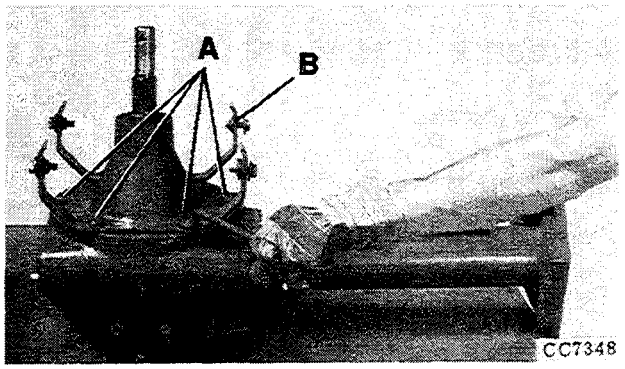
CC7381-CCL15020AE-200885

PRIMARY DRIVE REMOVAL

Loosen Primary Drive

Remove the six cap screws (A).

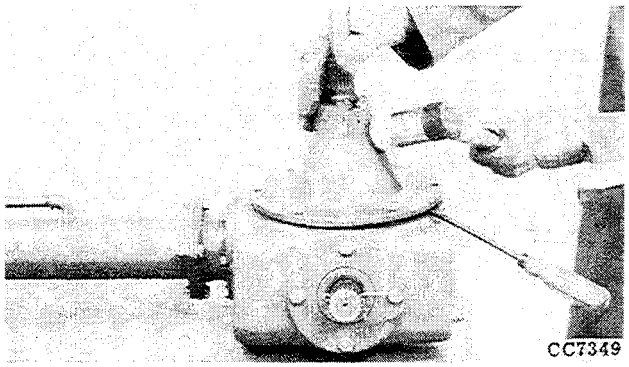
Remove the two supports (B).



CC7348-CCL15020AE-200885

Remove Quill

With a soft hammer loosen and remove quill.

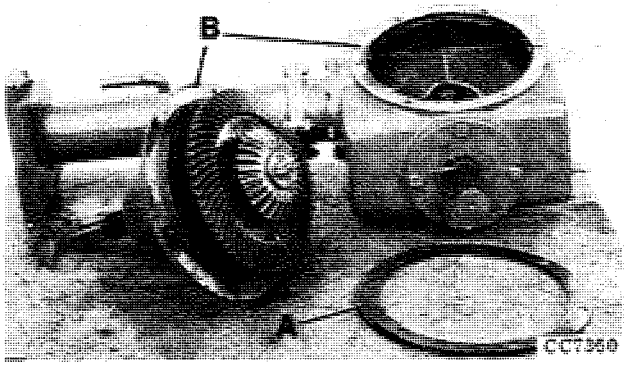


CC7349-CCL15020AE-200885

Clean Shims and Bearing Surfaces

Remove shims (A) and clean them.

Clean the bearing surfaces (B).

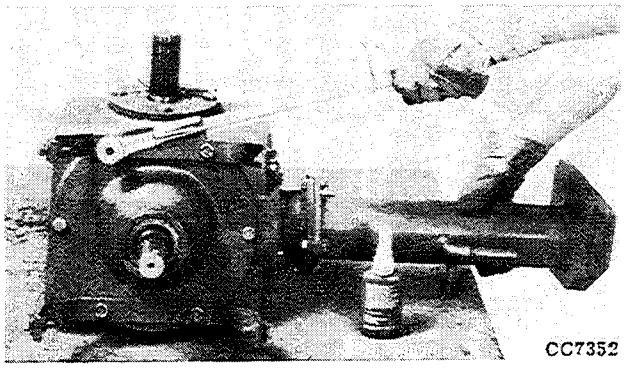


CC7350-CCL15020AE-200885

PRIMARY DRIVE REINSTALLATION

Seal the bearing surfaces with specified sealing compound.
Install correct thickness of shims.
Install primary drive and tighten the six cap screws to the specified torque.

IMPORTANT: Replacement of primary drive parts requires new adjustment of gears (see relevant group).



CC7352-CCL15020AE-200885

PRIMARY DRIVE DISASSEMBLY

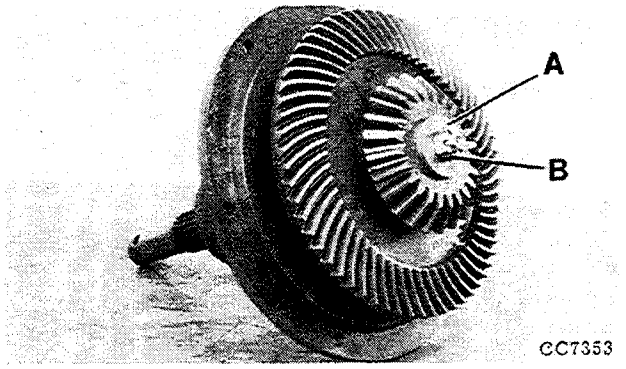
Remove Gears

Remove primary drive (see relevant group).

Remove cotter pin (A).

Remove castellated nut (B).

Remove plain bevel gear and spiral bevel gear.



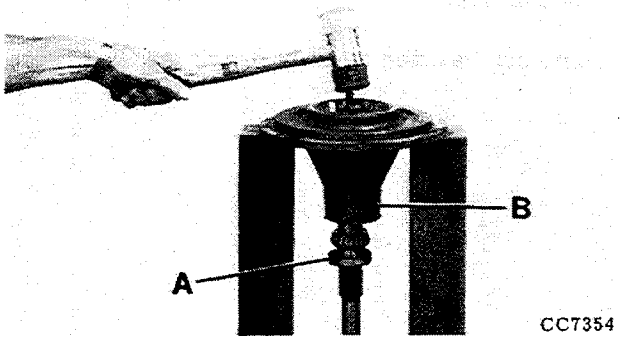
CC7353-CCL15020AE-200885

Remove Primary Drive Shaft

With a soft hammer, remove shaft.

Discard seal ring (A).

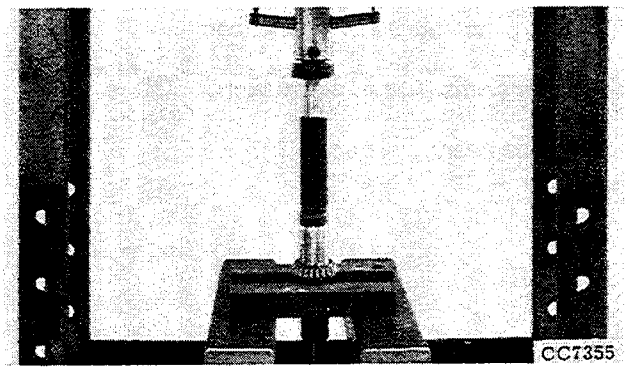
Clean sealing area (B).



CC7354-CCL15020AE-200885

Remove Bearing

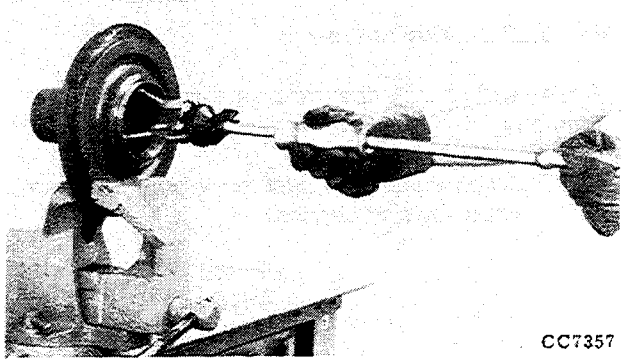
Press bearing out of shaft.



CC7355-CCL15020AE-200885

Remove Bearing Cups

Remove the two opposite bearing cups, using D-01210AA slide hammer puller.



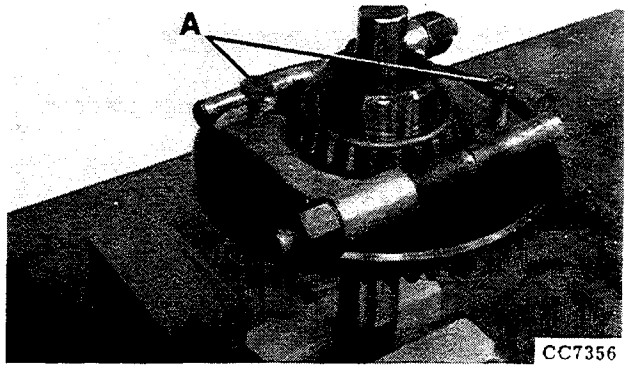
CC7357-CCL15020AE-200885

Remove Bearing

Remove bearing out of spiral bevel gear.

Use D-01267AA puller.

Simultaneously screw in the two cap screws (A) to separate bearing, then press out bearing.

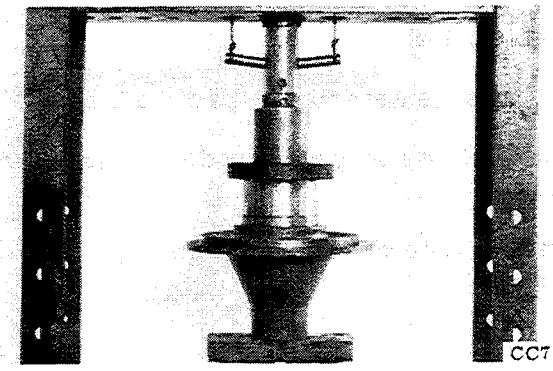


CC7356-CCL15020AE-200885

PRIMARY DRIVE REASSEMBLY

Press Bearing Cups

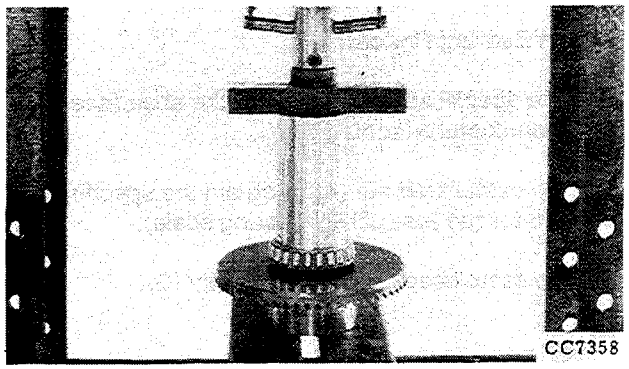
Press the two opposite bearing cups until cups bottom out against shoulder.



CC7359-CCL15020AE-200885

Reinstall Bearing

Press bearing until inner face bottoms out against shoulder.

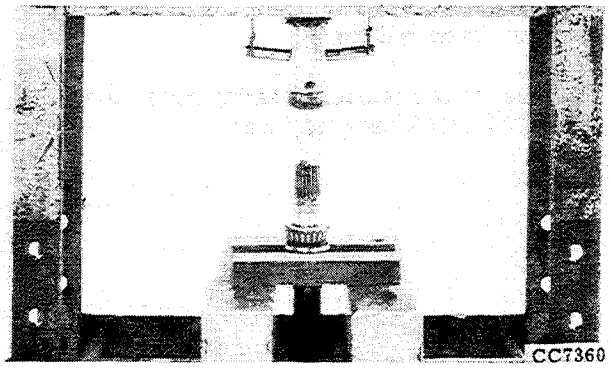


CC7358-CCL15020AE-200885

Reinstall Bearing on Shaft

Press bearing until inner race bottoms out against snap ring.

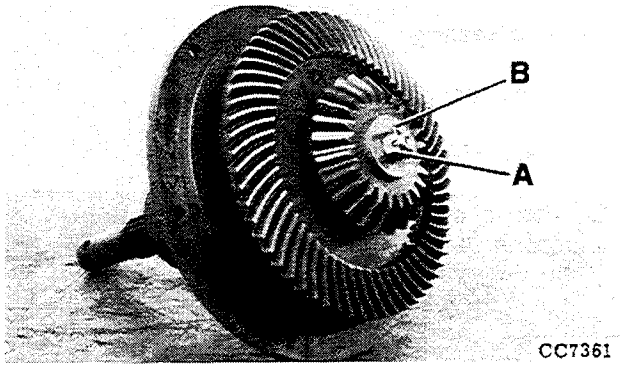
NOTE: Do not forget to install the washer between snap ring and bearing.



CC7360-CCL15020AE-200885

PRIMARY DRIVE REASSEMBLY

Reinstall shaft and pinions, reversing the previous steps.
Grease bearing with specified grease.
Do not tighten castellated nut (A) at this stage.
Do not spread cotter pin (B) at this stage.



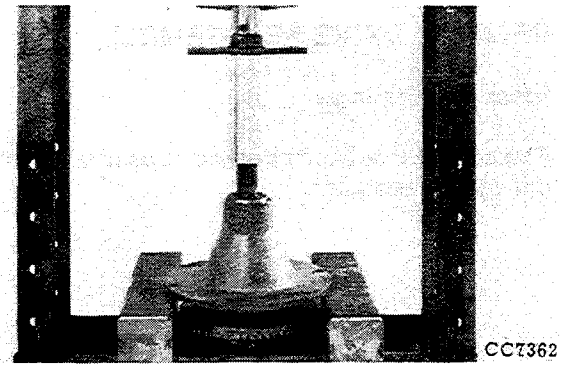
CC7361-CCL15020AE-200885

Press Lip Seal

Put grease between the two lips of the lip seal.

Use specified sealing compound to retain seal in its housing.

Press lip seal until it is flush with the edge of the hub.



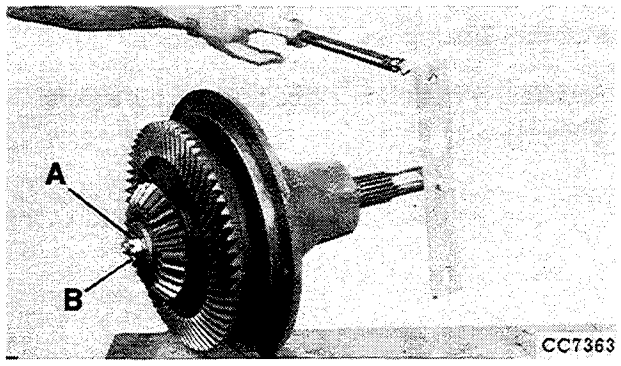
CC7362-CCL15020AE-200885

Adjust Bearing Preload

Bolt the special adjusting plate to the shaft (see self-manufactured tools).

Tighten castellated nut (A) to obtain the specified preload torque (use JDG 94 spring scale).

Secure castellated nut with cotter pin (B).



CC7363-CCL15020AE-200885

Reinstall Primary Drive

See relevant group for primary drive reinstallation.

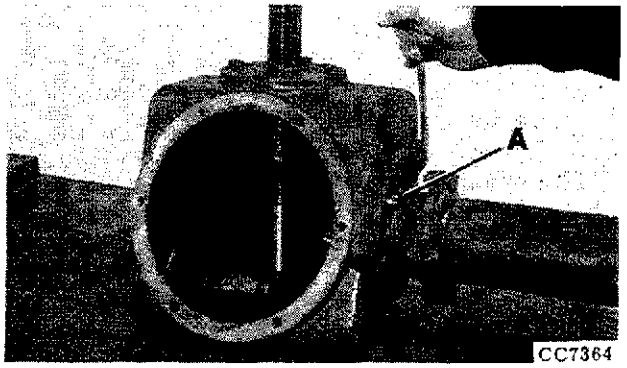
RENVOI-CCL15020EE-200885

CUTTERBAR DRIVE REMOVAL

Remove primary drive if necessary (see relevant group).

Remove the six cap screws (A).

Remove cutterbar drive.



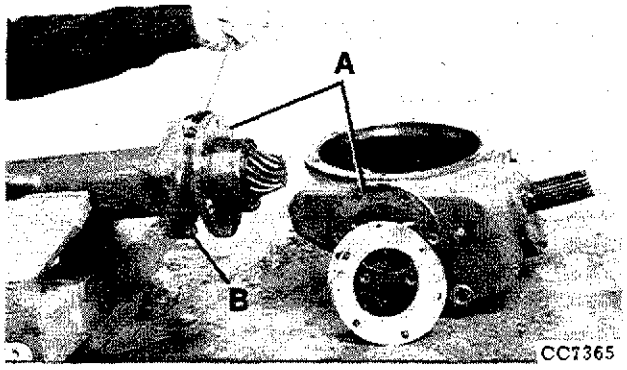
CC7364-CCL15020AE-200885

Remove Support Tube

Clean shims and bearing surfaces (A).

Remove the four cap screws (B).

Separate cutterbar drive from support tube.

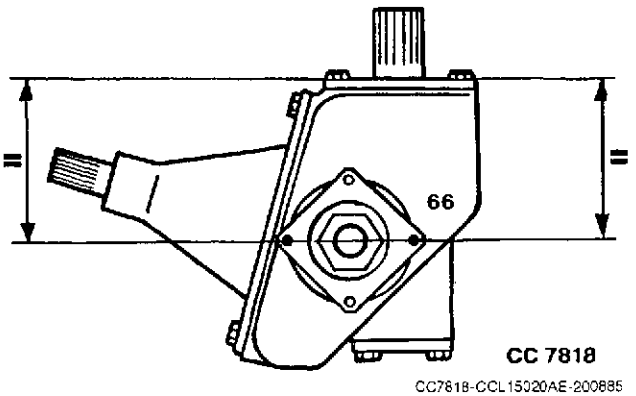


CC7365-CCL15020AE-200885

CUTTERBAR DRIVE REINSTALLATION

Index Quill Bearing

NOTE: Quill bearing must be indexed before securing it.



CC7818-CCL15020AE-200885

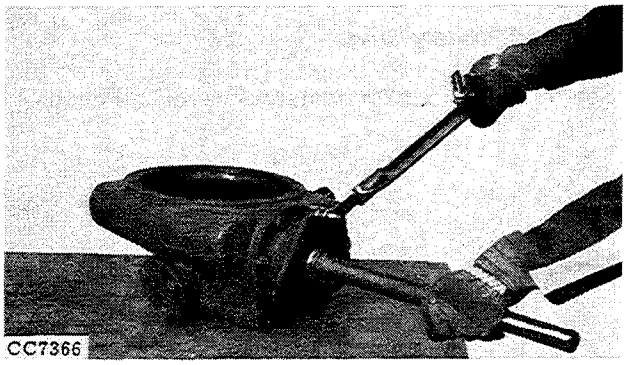
Secure Quill

Apply specified sealing compound to bearing surfaces.

Reinstall correct thickness of shims.

Tighten cap screws to the specified torque.

IMPORTANT: Replacement of cutterbar drive parts may require adjustment of spiral bevel gears (see relevant group).



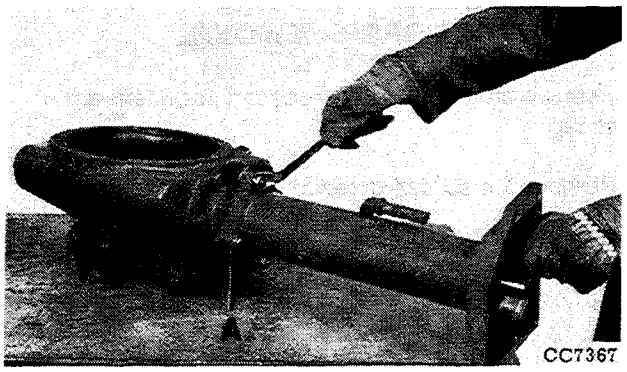
CC7366-CCL15020AE-200885

Reinstall Support Tube

Reinstall support tube, making sure that it is correctly positioned.

NOTE: Do not tighten the four cap screws and nuts (A) to the final torque. They will be tightened after gear case reinstallation.

Reinstall primary drive (see relevant group).



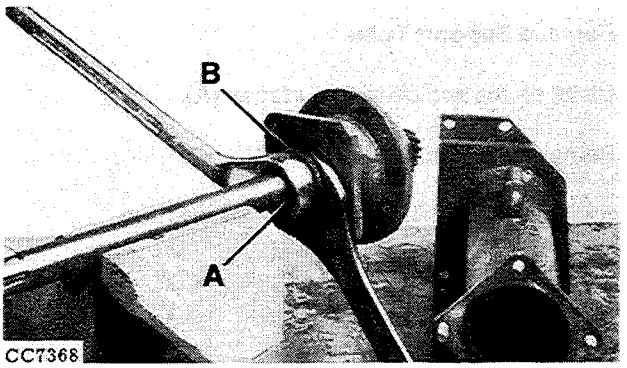
CC7367-CCL15020AE-200885

CUTTERBAR DRIVE DISASSEMBLY

Remove Lock Nuts

Remove cutterbar drive (see relevant group).

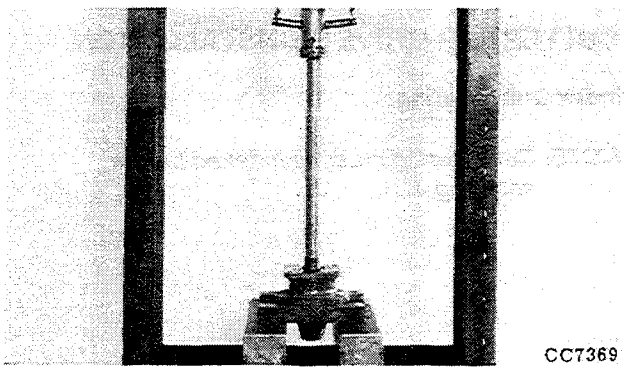
Loosen and remove nut and lock nut (A) as well as oil slinger (B).



CC7368-CCL15020AE-200885

Remove Main Shaft

Press main shaft out of quill.



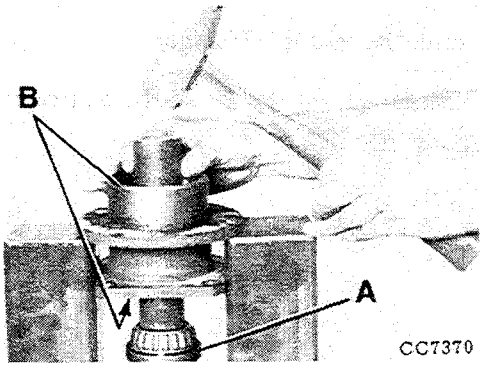
CC7369-CCL15020AE-200885

Remove Bearing

Remove bearing from quill.

Discard lip seal (A).

Remove the two opposite bearing cups (B) in the same manner as the primary drive quill bearing cups.



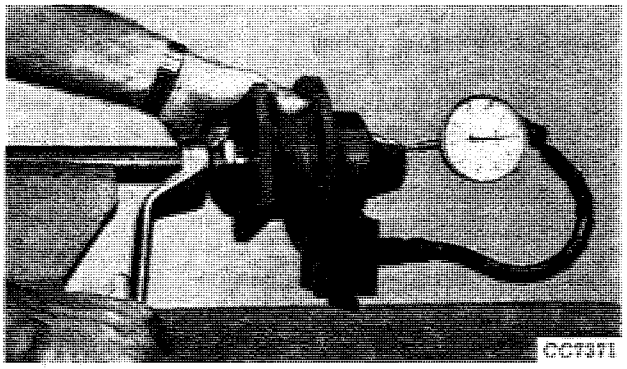
CC7370-CCL15020AE-200885

CUTTERBAR DRIVE REASSEMBLY

Install Main Shaft

Press bearing cups into quill (same method as for primary drive quill bearing). Grease bearing with specified grease.

Install main shaft and press on bearing by tightening nut until axial play is four times greater than specified dimension (move quill bearing by hand). Use dial indicator D17525C1 – D17526C1 – D17C17C1.



CC7371-CCL15020AE-200885

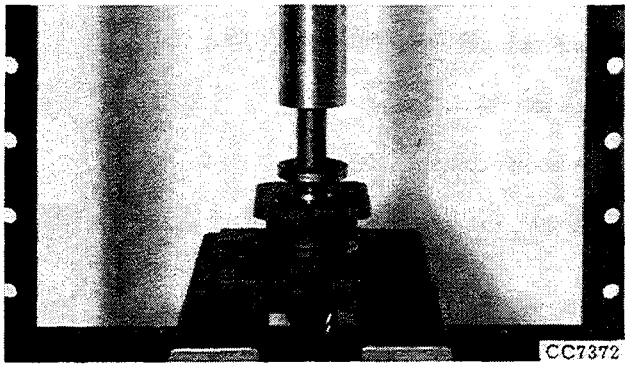
Prepare Lip Seal to Be Pressed

Remove nut from shaft.

Install conical washer (A).

Put grease between the two lips of the seal.

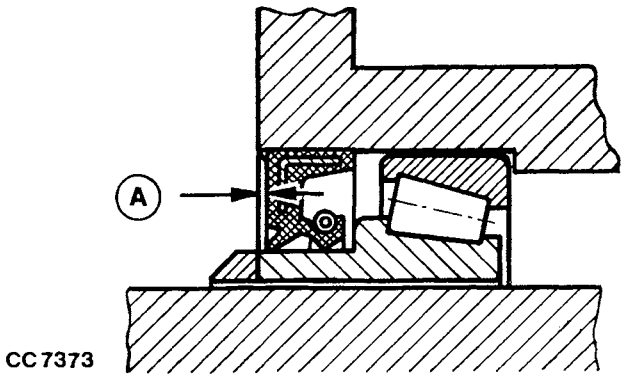
Use specified adhesive sealing compound to retain seal in its housing.



CC7372-CCL15020AE-200885

Press Lip Seal

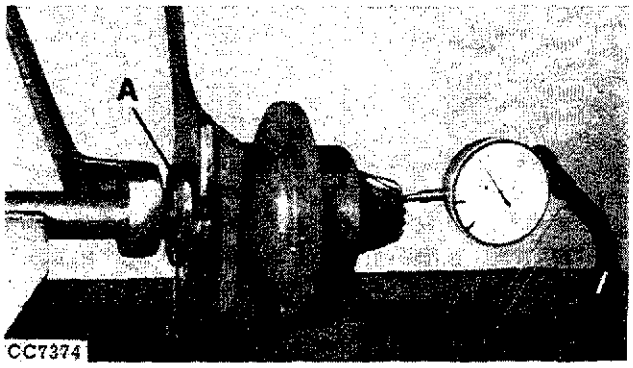
Press lip seal to the specified measurement (A).



CC7373-CCL15020AE-200885

Install Nuts and Oil Slinger

Install the two nuts (B) and the oil slinger (A) between them.



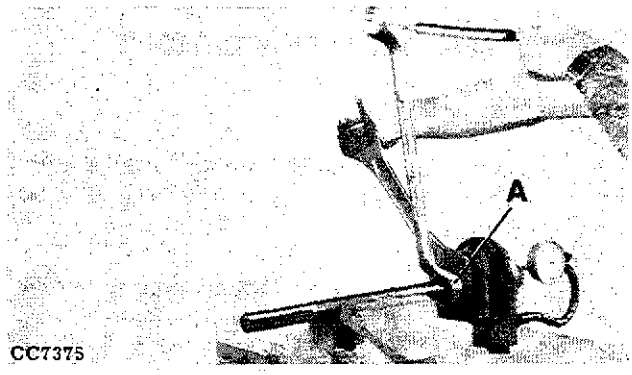
CC7374-CCL15020AE-200885

Adjust Bearing Axial Play

Slightly tighten nut (A) against bearing. Tighten lock nut to the specified torque against nut (A). Simultaneously screw nut (A) and counter nut to adjust the specified bearing axial play (move quill bearing by hand).

IMPORTANT: Never loosen nut (A) during operation.

Recheck axial play after hitting both ends of shaft with a soft hammer and having rotated shaft several times.



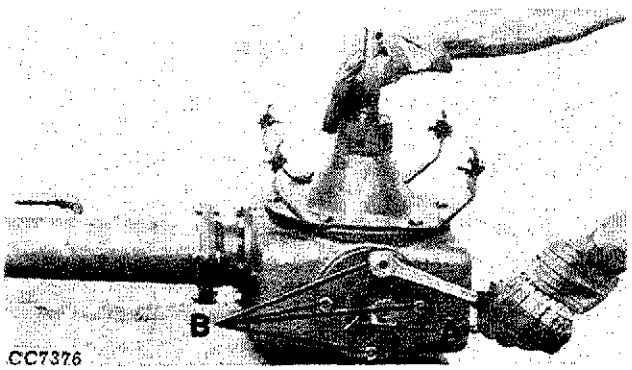
CC7375-CCL15020AE-200885

IMPELLER DRIVE REMOVAL

Loosen Front Cover

Remove cotter pin (A).

Remove the four cap screws (B).



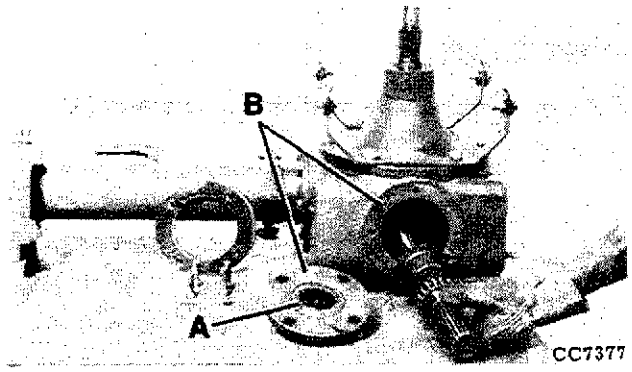
CC7376-CCL15020AE-200885

Remove Main Shaft

Remove cover, remove lip seal (A) from cover and discard it.

Remove shaft from gear case, clean bearing surfaces (B) of cover and gear case.

Clean and keep shims.



CC7377-CCL15020AE-200885

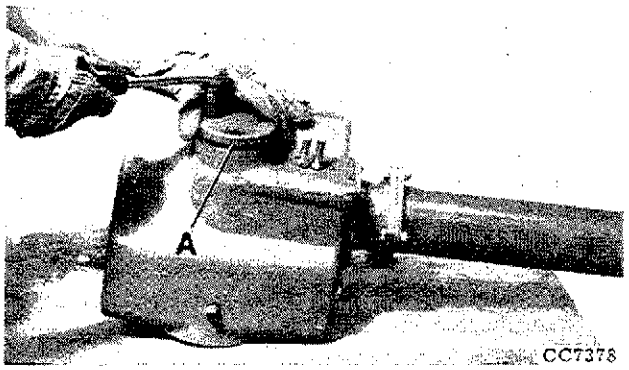
Remove Rear Cover

Remove the three cap screws.

Remove rear cover and shims.

Clean bearing surfaces (A) of cover and gear case.

Clean and keep shims.



CC7378-CCL15020AE-200885

IMPELLER DRIVE REINSTALLATION

NOTE: Replacing impeller drive parts may require a new bearing preload and/or bevel gear adjustment. Refer to the following instructions for bearing preload adjustment and to the relevant group for bevel gear adjustment. Go to "cover reinstallation" steps if no part is replaced.

RENVOI-CCL15020FE-200885

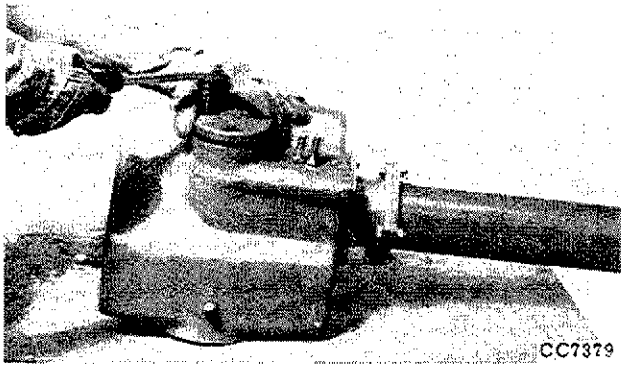
BEARING PRELOAD ADJUSTMENT

Install Rear Cover

Temporarily install rear cover with the specified nominal thickness of shims.

Secure with three cap screws.

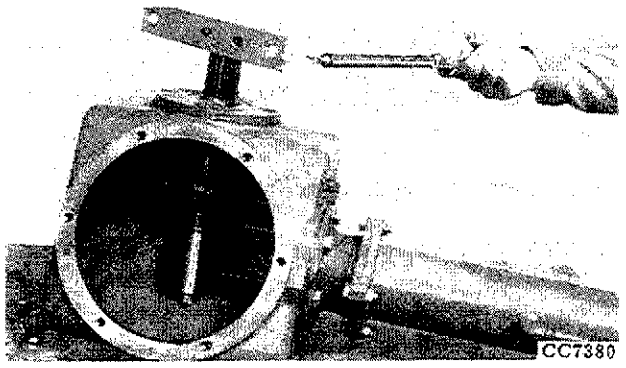
Remove primary drive (see relevant group).



CC7379-CCL15020AE-200885

Adjust Preload Torque

Grease bearing with specified grease.
Install main shaft and front cover with the specified nominal thickness of shims. Secure with two cap screws.
Bolt the adjustment plate (self-manufactured tool) to the main shaft.
Remove or add shims under rear cover to obtain the specified preload torque.
Use JDG 94 spring scale.



CC7380-CCL15020AE-200885

Adjust Impeller Bevel Gear Backlash

Adjust impeller bevel gear backlash (see relevant group).

Reinstall primary drive (see relevant group).

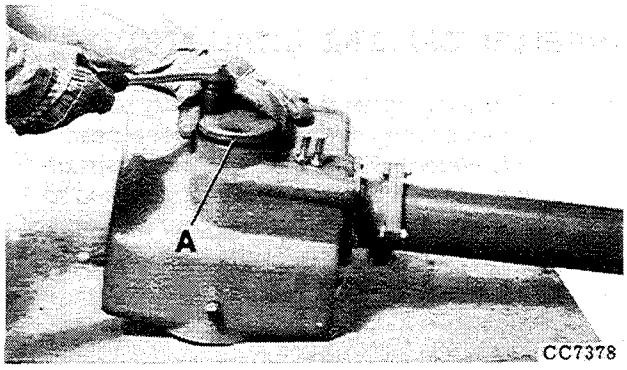
RENVOI-CCL15020GE-200885

COVER REINSTALLATION

Reinstall Rear Cover

Apply specified sealing compound to bearing surfaces (A) and install the correct thickness of shims.

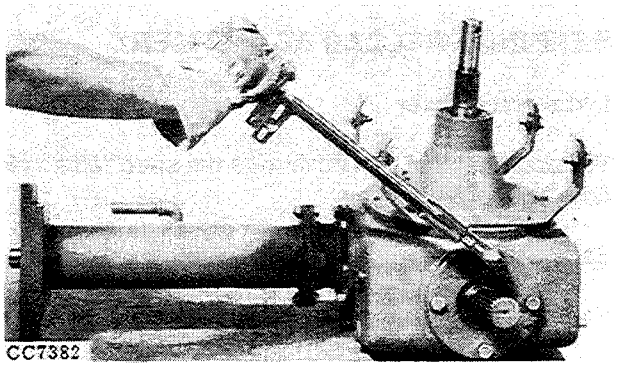
Tighten the three cap screws to the specified torque.



CC7378-CCL15020BE-200885

Reinstall Front Cover

Grease bearing with specified grease and install main shaft.
Install front cover with shims and specified sealing compound on bearing surfaces.
Tighten the four cap screws to the specified torque.



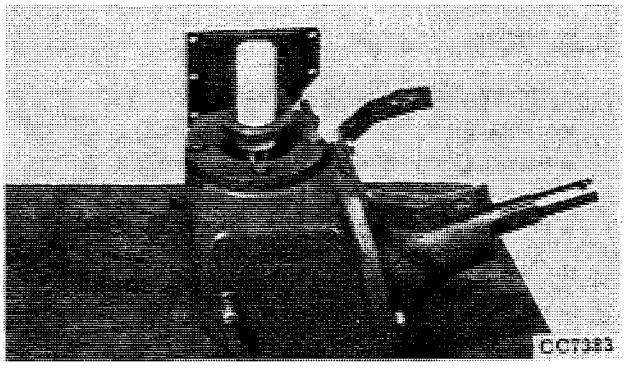
CC7382-CCL15020AE-200885

Reinstall Lip Seal

Wrap the splined shaft with thin oiled paper to avoid damaging seal lip.

Put grease between the two lips of the lip seal.

Use specified sealing compound to retain seal in its housing and press it into housing until it is flush with the surface of the cover.
Reinstall cotter pin on shaft and spread it.



CC7383-CCL15020AE-200885

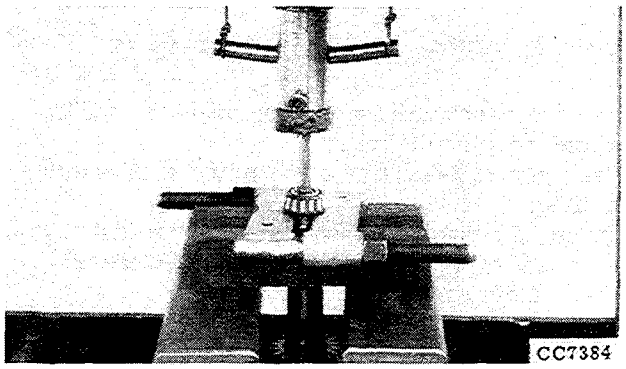
IMPELLER DRIVE DISASSEMBLY

Remove Bearings

Remove impeller drive (see relevant group).

Press bearings out of main shaft.

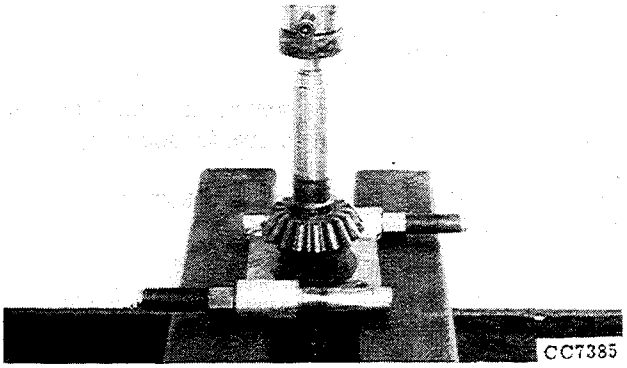
Use D-01267AA puller.



CC7384-CCL15020AE-200885

Remove Bevel Gear

Press gear from main shaft.

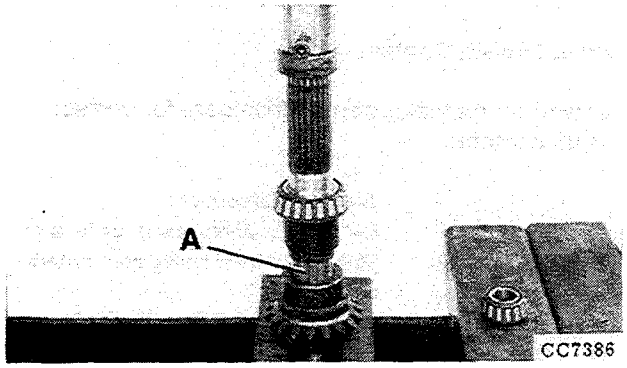


CC7385-CCL15020AE-200885

IMPELLER DRIVE REASSEMBLY

Reinstall Bevel Gear

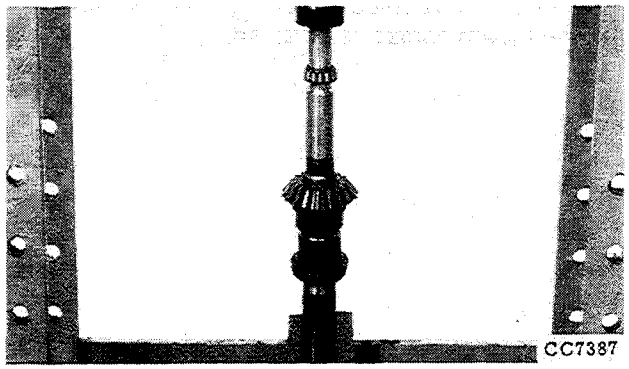
Put key (A) into its housing and press gear on shaft until gear bottoms out against shaft shoulder.



CC7386-CCL15020AE-200885

Reinstall Bearings

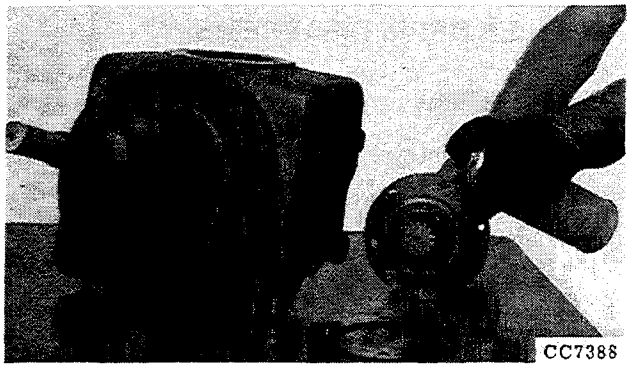
Press bearings on shaft until inner races bottom out against shoulder.



CC7387-CCL15020AE-200885

SPIRAL BEVEL GEAR ADJUSTMENT

Remove primary drive, cutterbar drive and impeller drive (see relevant group).
Clean and coat the teeth of the cutterbar drive with blueing.
Install the primary drive with specified nominal thickness of shims (Gear teeth must be cleaned).
Use two cap screws for securing.

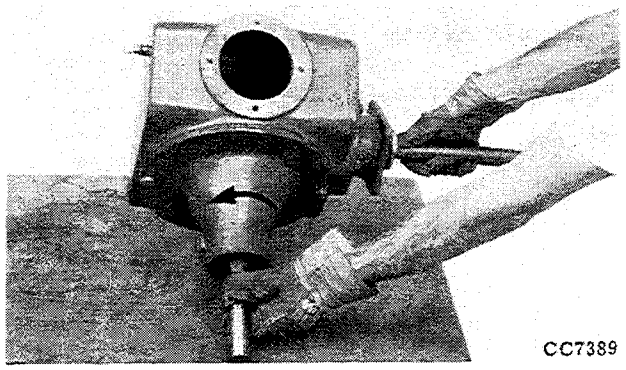


CC7388-CCL15020AE-200885

Check Tooth Contact

Install cutterbar drive with specified nominal thickness of shims. Use only two cap screws for securing.

Manually rotate primary shaft several turns in direction indicated.



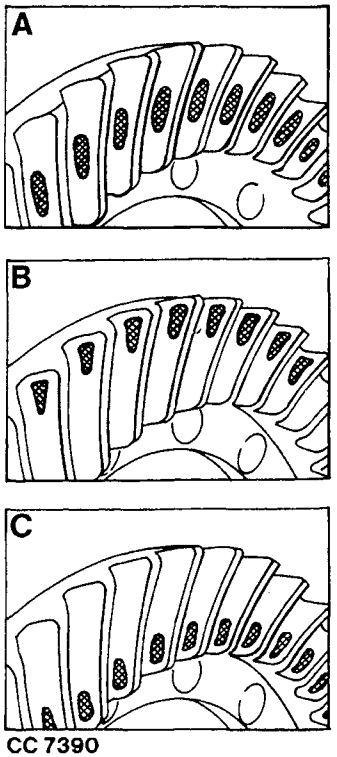
CC7389-CCL15020AE-200885

Adjust Tooth Contact

Look through the cutterbar drive bore for correct tooth contact:

A–Contact is correct
B–Cutterbar bevel gear is too far away. Shims must be removed from cutterbar quill bearing.
C–Cutterbar bevel gear is too close. Shims must be added to cutterbar quill bearing.

Repeat previous steps and change shim thickness until correct tooth contact is obtained.



CC 7390

CC7390-CCL15020AE-200885

Check and Adjust Spiral Bevel Gear Backlash

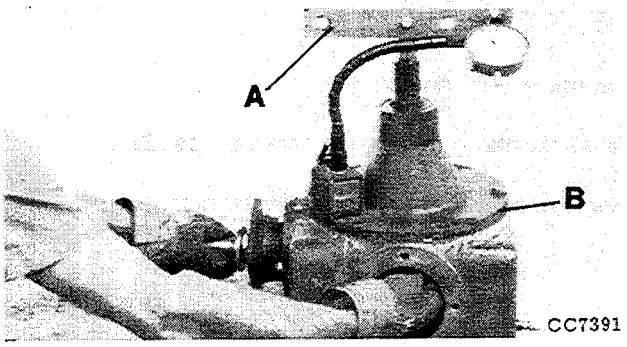
Secure self-manufactured adjusting plate (A) to shaft. Install the dial indicator tip 100 mm (3.94 in.) from the shaft center.

Check specified backlash by moving spiral bevel gear and immobilizing cutterbar shaft.

NOTE: Correct tooth contact normally involves correct backlash.

Modify thickness of shims (B) of the primary drive quill bearing until backlash is obtained.

Install primary drive (see relevant group).



CC7391-CCL15020AE-200885

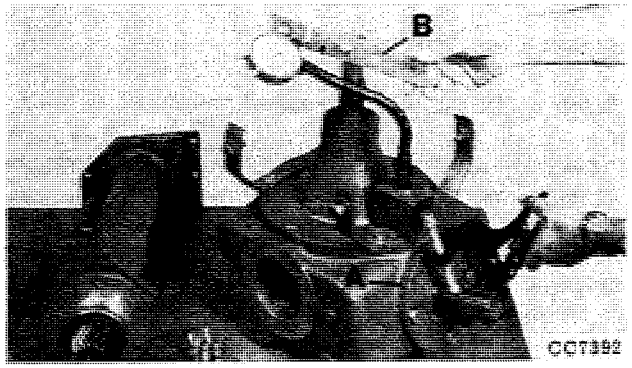
IMPELLER BEVEL GEAR ADJUSTMENT

NOTE: This adjustment must be made after the spiral bevel gear adjustment. Bearing preload adjustment of the impeller drive must be correct (see relevant group if necessary).

Install impeller drive with specified nominal thickness of shims behind cover (A). Secure the covers with two cap screws.

IMPORTANT: Total thickness of shims of the two covers must be maintained so that correct preload of roller bearings is not altered.

Secure adjusting plate (B) to shaft. Install the dial indicator tip 50 mm (1.97 in.) from shaft center.
Immobilize cutterbar shaft and manually move the primary drive shaft.
Remove or add shims under cover (A) to obtain the specified backlash.



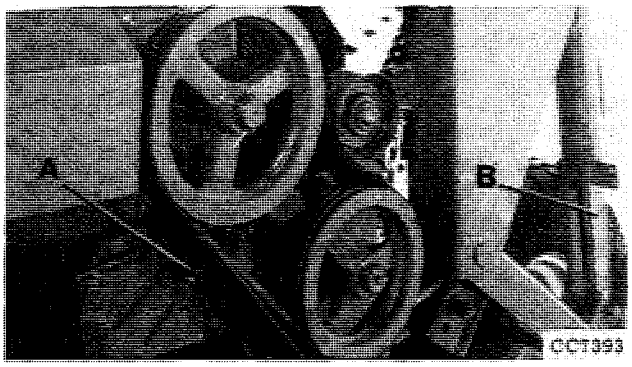
CC7392-CCL15020AE-200885

GEAR CASE REMOVAL

Release Idler Tension

Raise machine and engage safety stops (B).

Remove nuts (A) to release idler tension.



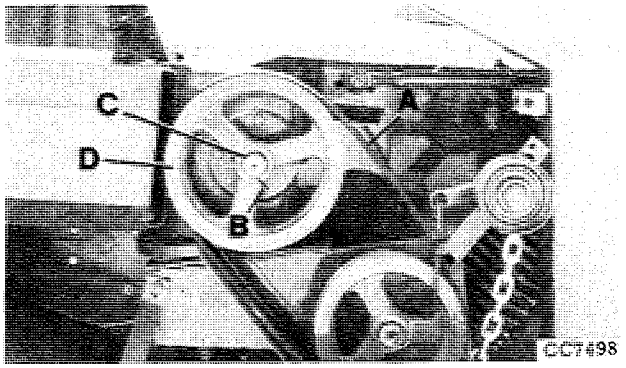
CC7393-CCL15020AE-200885

Remove Impeller Drive Pulley

Remove drive belt (A) (groove by groove).

Remove cotter pin (B) and washers (C).

Remove pulley (D).

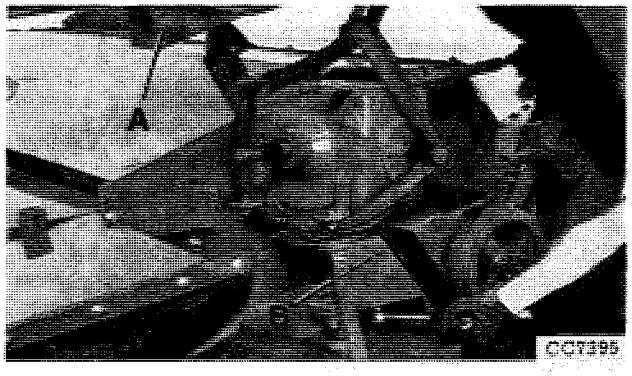


CC7498-CCL15020AE-200885

Secure Gear Case

Remove slip clutch (see relevant group).

Install a piece of wood (A) between stop and platform to hold platform in low position.
Secure gear case as shown.
Remove the four cap screws (B) securing gear case to bracket.



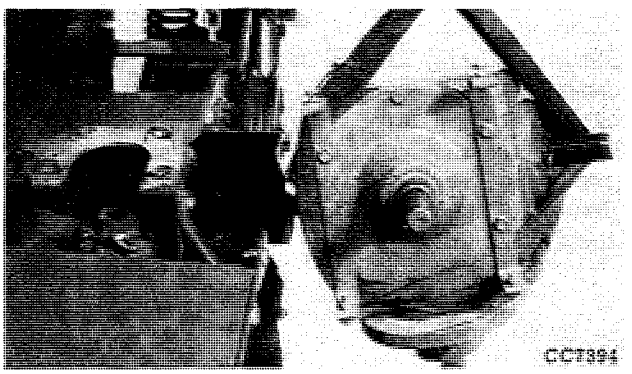
CC7395-CCL15020AE-200885

Remove Gear Case from Machine

Lift up and remove gear case.

Drain gear case if necessary (see operator's manual).

Clean the bracket area.



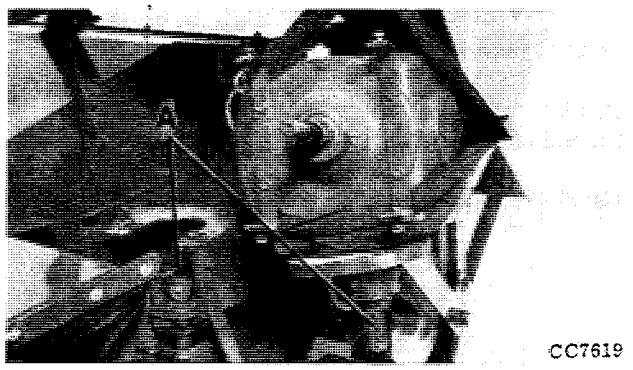
CC7394-CCL15020AE-200885

1327 – GEAR CASE INSTALLATION

Grease shaft and splines (A).

Reinstall the gear case onto its bracket.

Manually reinstall the four cap screws securing the gear case to its bracket.

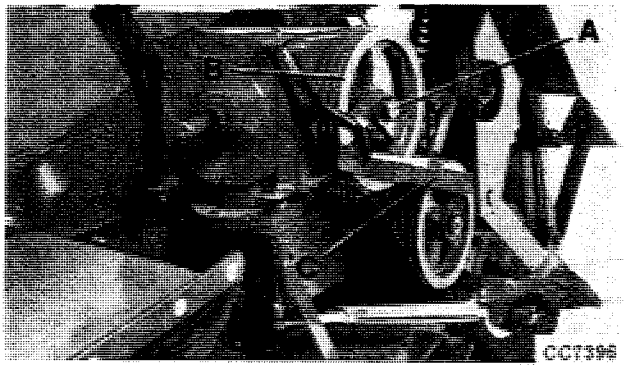


CC7619-CCL15020AE-200885

Adjust Pulley Parallelism and Secure Gear Case

Grease shaft (A) and install drive pulley (B). Clamp straight iron bar (C) on drive pulley.

Adjust pulley parallelism by rotating gear case in the axis of cutterbar drive shaft. Secure gear to its bracket by tightening the four cap screws to the specified torque.

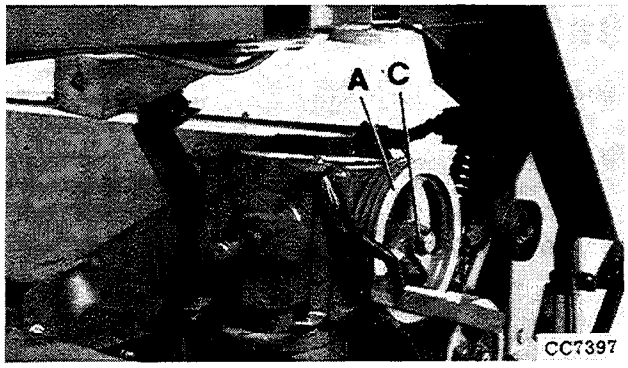


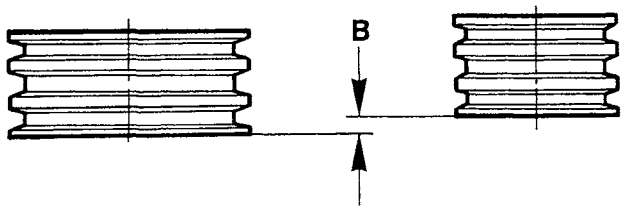
CC7396-CCL15020AE-200885

Adjust Pulley Alignment

Install or remove washers behind pulley (A) not to exceed specified dimension (B).

Install washer and spread cotter pin in hole (C).





CC 7499

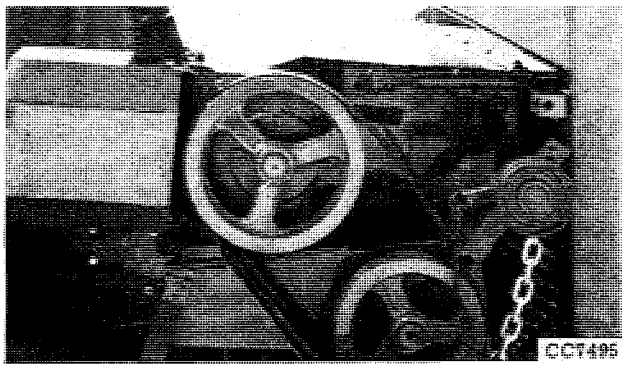
CC7397,CC7499-CCL15020AE-200885

Reinstall Drive Belt and Slip Clutch

Reinstall drive belt (groove by groove).

Reinstall slip clutch (see relevant group).

Remove the piece of wood between platform and stop.

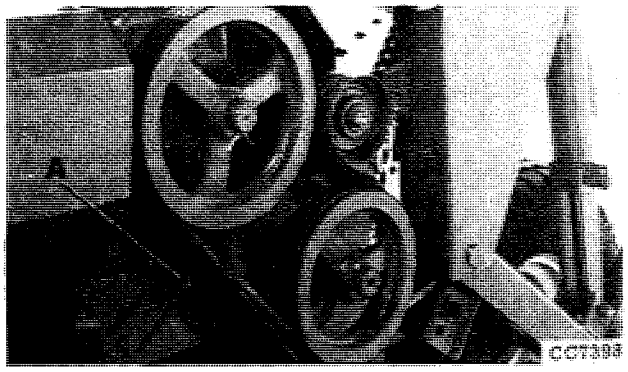


CC7495-CCL15020AE-200885

Reinstall Idler Pulley

Reinstall idler eyebolt and tighten nut (A) until specified spring deflection is obtained. Tighten lock nut.

Fill gear case with oil if necessary (see operator's manual).



CC7398-CCL15020AE-200885

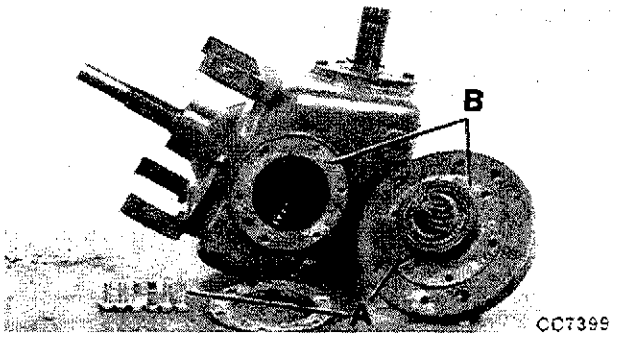
CUTTERBAR DRIVE REMOVAL

Remove gear case (see relevant group).

Remove the six cap screws (A).

Remove quill bearing and shims.

Clean bearing surfaces (B) and shims.

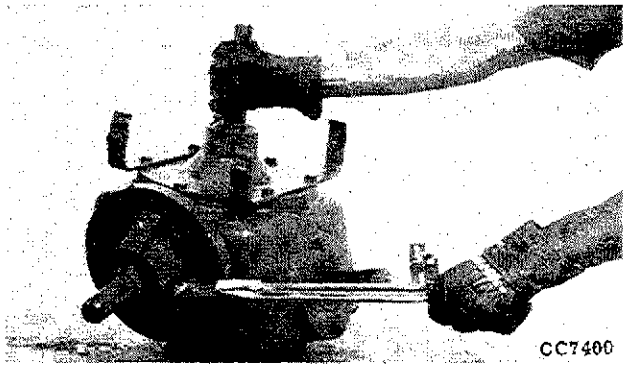


CC7399-CCL15020AE-200885

CUTTERBAR DRIVE REINSTALLATION

Reinstall cutterbar drive with correct thickness of shims. Seal bearing surfaces with specified sealing compound. Note that drain plug is indexed. Tighten cap screws to specified torque.

IMPORTANT: Replacing cutterbar drive parts requires new adjustment of spiral bevel gears (see relevant group).



CC7400-CCL15020AE-200885

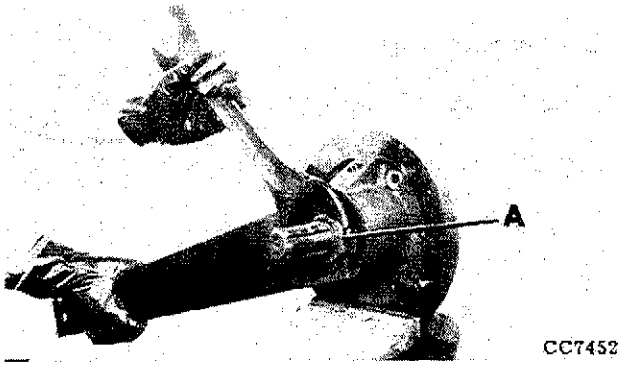
CUTTERBAR DRIVE DISASSEMBLY

Remove Lock Nuts

Remove cutterbar drive (see relevant group).

Loosen and remove the nut and lock nut (A).

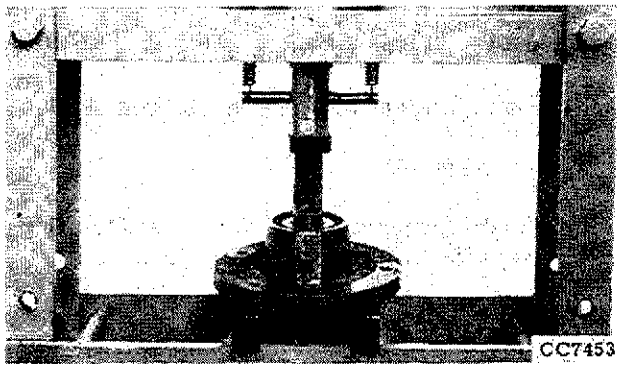
Use self-manufactured wrench (see self-manufactured tools).



CC7452-CCL15020AE-200885

Remove Main Shaft

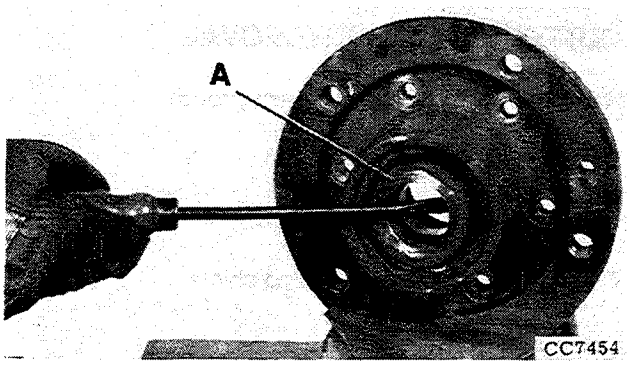
Press main shaft out of quill.



CC7453-CCL15020AE-200885

Remove Sealing Bushing

Remove bushing (A).

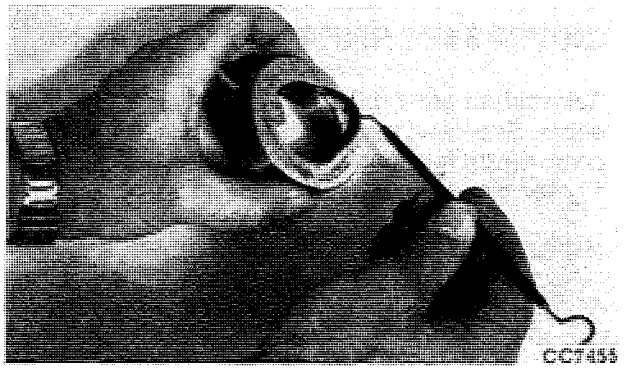


CC7454-CCL15020AE-200885

Remove O-Ring

Remove O-ring from bushing.

Use JDH-6 tool.

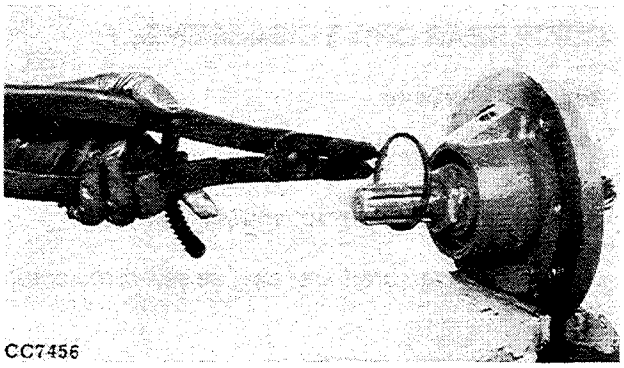


CC7455-CCL15020AE-200885

Remove Snap Ring

Remove snap ring from quill bearing.

Use JDG-114 snap ring pliers.



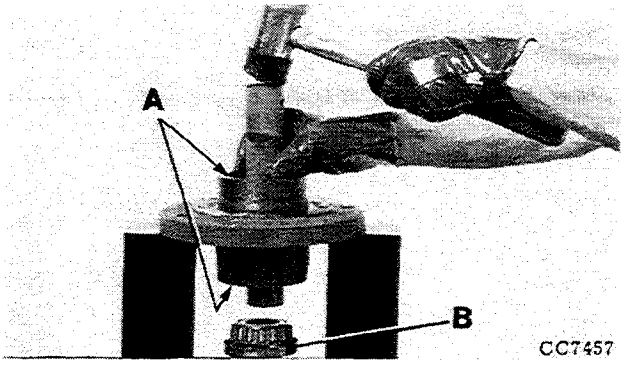
CC7456-CCL15020AE-200885

Remove Lip Seal and Bearing

Remove bearing and lip seal from quill bearing.

Discard lip seal (B).

Remove the two opposite bearing cups (A) in same manner as for 1326 (see relevant group).

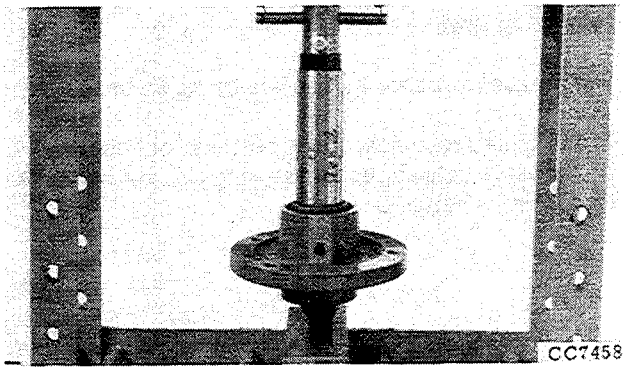


CC7457-CCL15020AE-200885

CUTTERBAR DRIVE REASSEMBLY

Install Main Shaft

Press bearing cup into quill in the same manner as for 1326 (see relevant group).
Grease bearing with specified grease.
Install main shaft into quill and press bearing on shaft. Stop to press when the quill is about 3 mm (0.12 in.) axially loosened.



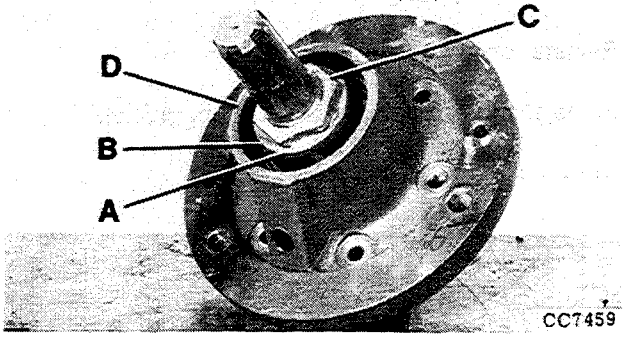
CC7458-CCL15020AE-200885

Install Bushing and Nut

Clean lip seal area (D) with solvent.
Oil a new O-ring and install it in bushing (A).

Install bushing (A) with its chamfer (B) in position shown.

Install nut (C).

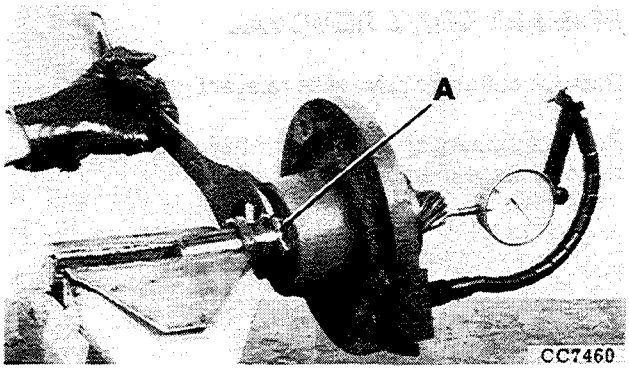


CC7459-CCL15020AE-200885

Adjust Bearing Preaxial Play

Tighten nut (A) until axial play is four times greater than specified dimension (move quill manually).

Use dial indicator D175251 – D 1756C1 – D 17C17C1.



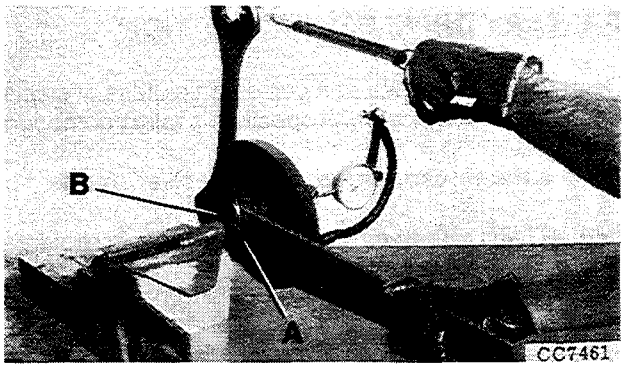
CC7460-CCL15020AE-200885

Adjust Bearing Axial Play

Install lock nut (B) and tighten to specified torque against nut (A). Simultaneously screw nut and lock nut to adjust specified bearing axial play (move quill manually).

IMPORTANT: Never loosen nut (A) or lock nut (B) during operation.

Recheck axial play after hitting both ends of shaft with a soft hammer and rotating shaft several times.

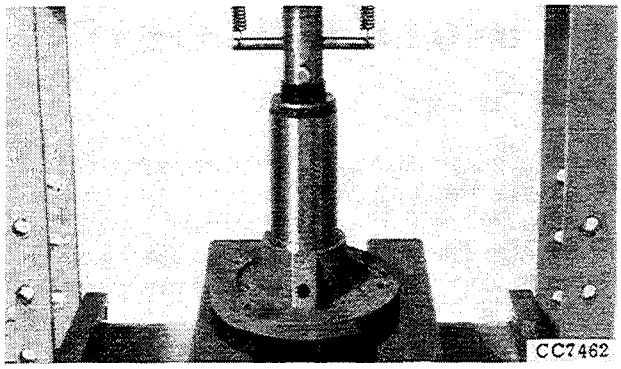


CC7461-CCL15020AE-200885

Install Lip Seal

Put grease between the two lips of the lip seal.

Press lip seal into quill until it bottoms out against the shoulder. Use specified sealing compound to seal lip seal in its housing.



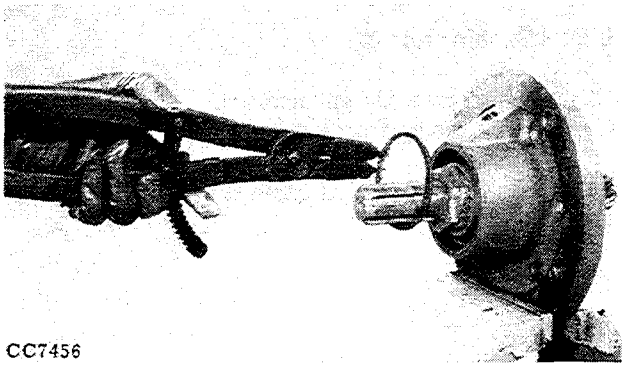
CC7462-CCL15020AE-200885

Reinstall Snap Ring

Reinstall snap ring.

Reinstall cutterbar drive (see relevant group).

Use JDG-114 snap ring pliers.

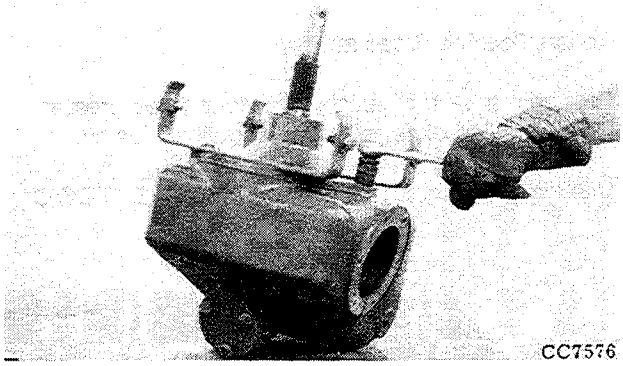


CC7456-CCL15020AE-200885

PRIMARY DRIVE REMOVAL

Remove cutterbar drive (see relevant group).

Remove primary drive. Refer to 1326 primary drive removal since the process is identical.



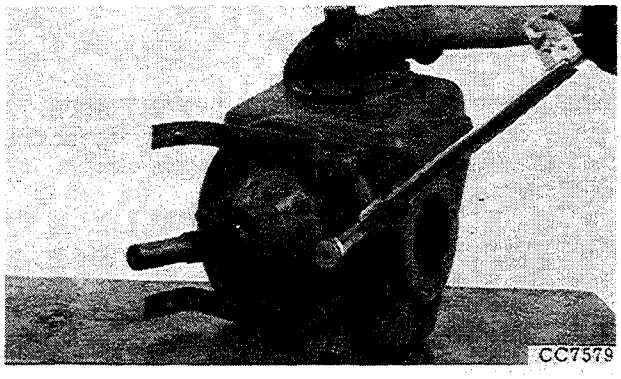
CC7576-CCL15020AE-200885

PRIMARY DRIVE REINSTALLATION

Reinstall primary drive with correct thickness of shims. Seal bearing surfaces with specified sealing compound.

Tighten the six cap screws to the specified torque.

IMPORTANT: Replacing primary drive parts requires gear adjustment (see relevant group).



CC7579-CCL15020AE-200885

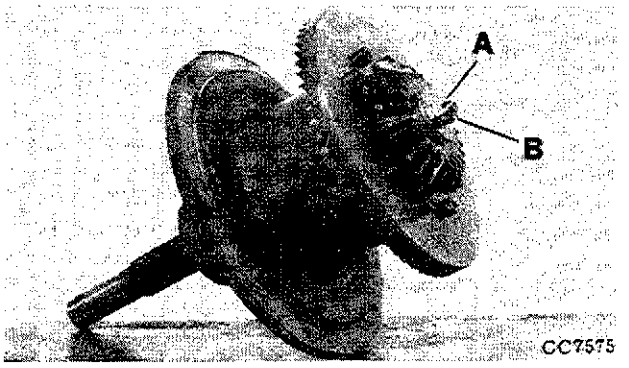
PRIMARY DRIVE DISASSEMBLY

Remove primary drive (see relevant group).

Remove cotter pin (A).

Remove castellated nut (B).

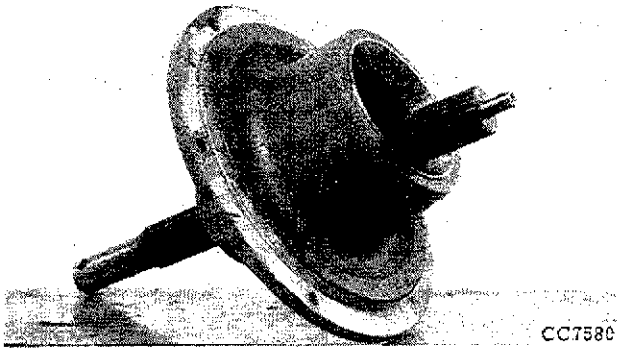
Remove spiral bevel gear and plain bevel gear.



CC7575-CCL15020AE-200885

Remove Shaft Bearing, Bearing Cups and Lip Seal

Refer to 1326 "Primary drive disassembly" from step "Remove primary drive shaft" to step "Remove bearing cups" since the process is identical.

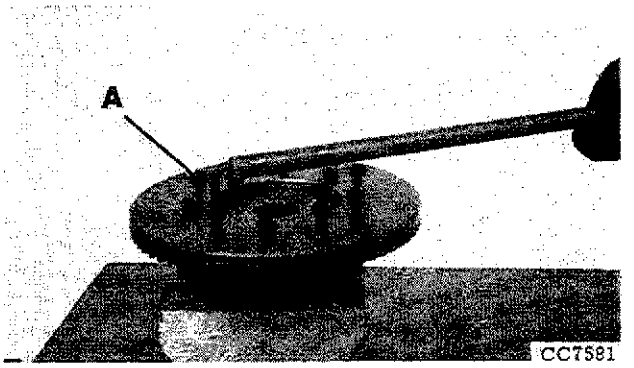


CC7580-CCL15020AE-200885

Disassemble Spiral Bevel Gear

Loosen and remove the ten cap screws (A).

Separate spiral bevel gear from its hub.

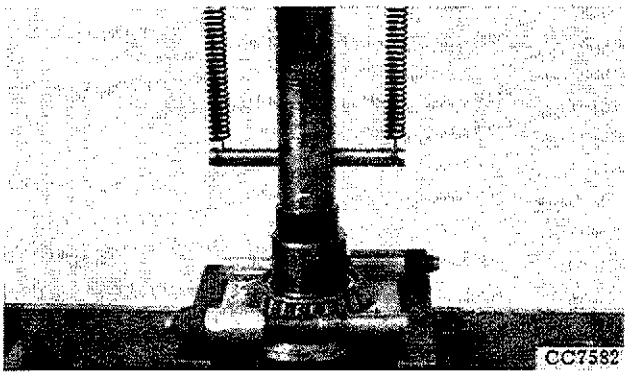


CC7581-CCL15020AE-200885

Remove Bearing

Press bearing out of hub.

Use special tool D01267-A.



CC7582-CCL15020AE-200885

PRIMARY DRIVE REASSEMBLY

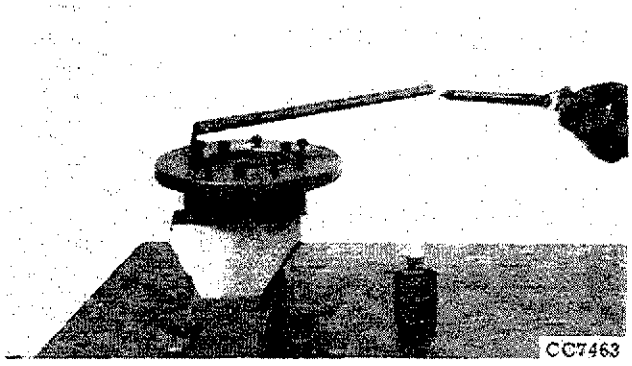
Reassemble Spiral Bevel Gear

Clean hub threads with solvent.

Reassemble spiral bevel gear and hub.

Tighten cap screws to specified torque.

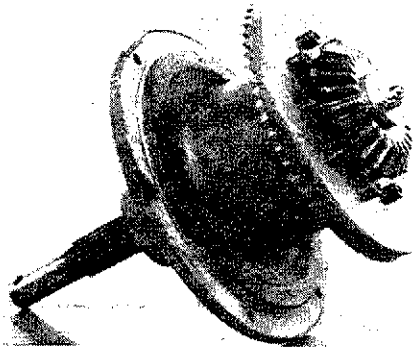
Use specified thread lock to secure cap screws.



CC7463-CCL15020AE-200885

Reassemble Primary Drive

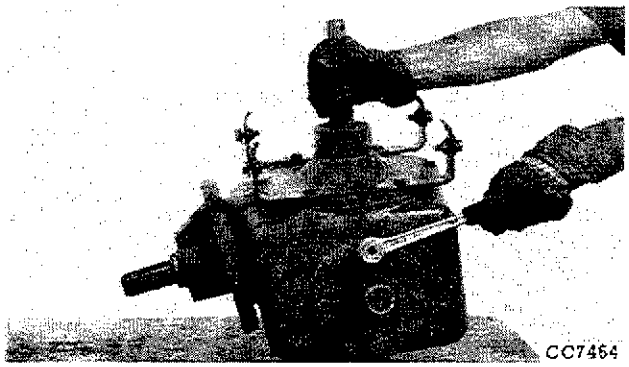
Refer to 1326 "Primary drive reassembly" since the process is identical.



CC7574-CCL15020AE-200885

IMPELLER DRIVE REMOVAL

Refer to 1326 "Impeller drive removal" since the process is identical.



CC7464-CCL15020AE-200885

IMPELLER DRIVE REINSTALLATION

Refer to 1326 "Impeller drive reinstallation" since the process is identical.

RENVOI-CCL15020HE-200885

IMPELLER DRIVE DISASSEMBLY

Refer to 1326 "Impeller drive disassembly" since the process is identical.

RENVOI-CCL15020IE-200885

IMPELLER DRIVE REASSEMBLY

Refer to 1326 "Impeller drive reassembly" since the process is identical.

RENVOI-CCL15020JE-200885

SPIRAL BEVEL GEAR ADJUSTMENT

Refer to 1326 "Spiral bevel gear adjustment" since the process is identical.

RENVOI-CCL15020KE-200885

IMPELLER BEVEL GEAR ADJUSTMENT

Refer to 1326 "Impeller bevel gear adjustment" since the process is identical.

RENVOI-CCL15020LE-200885

Section 100
CUTTING COMPONENTS – REPAIR

CONTENTS OF THIS SECTION IN GROUPS

COUPE-CCL110001AE-200885

TORQUES FOR HARDWARE

Disk self locking nut	180 ± 18 Nm (133 ± 13.3 ft-lb)

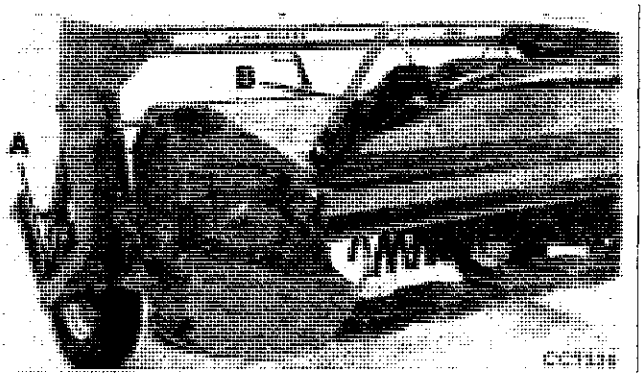
NOTE: Locking nut must be replaced after five reinstallations.

DISQUES-CCL110005AE-200885

DISK REMOVAL

Prepare the Machine

Put the machine in raised position and engage safety stops (A).
Position tongue in operating position.
Lock the safety screen (B) in raised position.
Clean the concerned disk area.

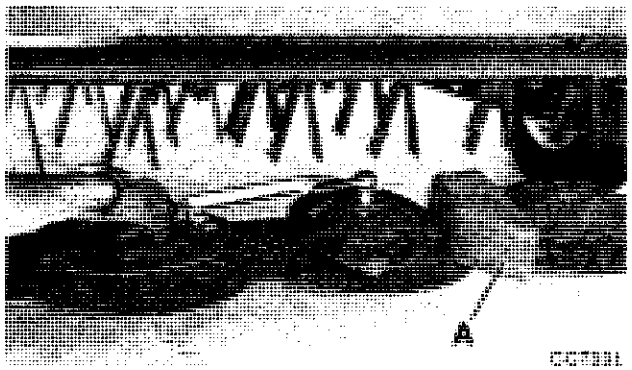


CC7330-CCL110005AE-200885

Loosen Self-Locking Nut

Use a piece of wood (A) to wedge the disks.

Remove the self-locking nut and the cupped spring washer.

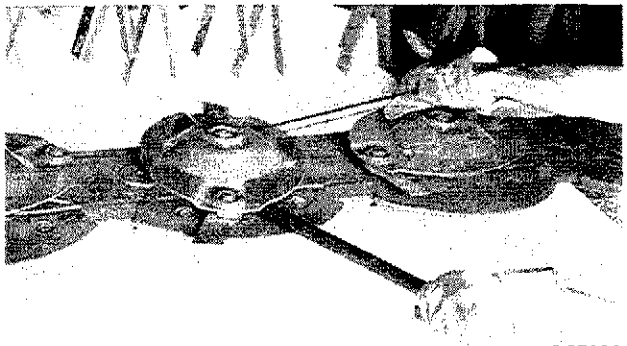


CC7331-CCL110005AE-200885

Remove Disk

Remove the piece of wood.

Remove disk using two crow-bars.



CC7332

CC7332-CCL110005AE-200885

DISK REINSTALLATION

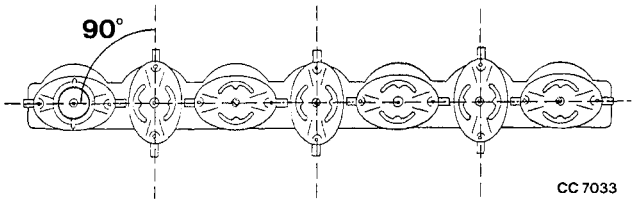
IMPORTANT: Before reinstalling disk, clean splines and seating surfaces.

DISQUES-CCL110005BE-200885

Reinstall Disk

Reinstall disk on its shaft.

IMPORTANT: Each disk must be perpendicular to its neighbour. This is a general rule for 1326 (6 disks) and 1327 (7 disks) cutterbars.



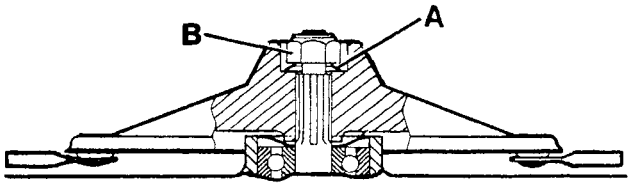
CC7033-CCL110005AE-200885

Install Self-Locking Nut

Reinstall the cupped spring washer (A) in correct direction.

Manually reinstall the self locking nut (B).

IMPORTANT: Replace the self-locking nut after five reinstallations.



CC 7333

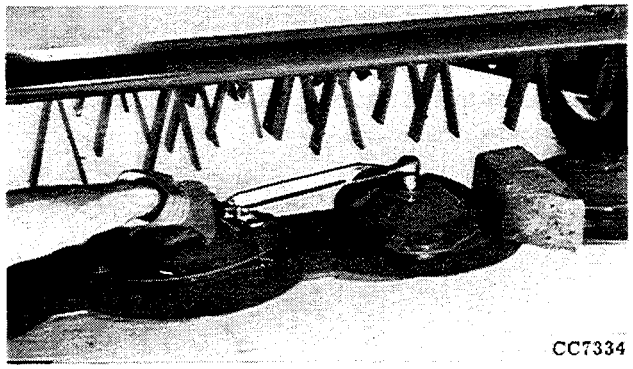
CC7333-CCL110005AE-200885

Tighten Disk

Install a piece of wood to wedge disk.

Tighten self-locking nut to specified torque.

Remove the piece of wood.



CC7334-CCL110005AE-200885

Check the Installation

Move disk manually up and down and rotate it to check correct installation.

Lower safety screen.

DISQUES-CCL110005CE-200885

TORQUES FOR HARDWARE

1326-1327 Hex. socket screws securing the two halves of cutterbar in the middle	360 Nm (265 ft-lb)
1326-1327 Cap screws securing the cutterbar in the periphery	70 Nm (51 ft-lb)
1327 – Cap screws securing both sides of cutterbar to the machine	127 ± 13 Nm (90 ± 10 ft-lb)
1326-1327 Four cap screws securing disk quill bearing inside of the cutterbar	70 Nm (51 ft-lb)

BARRE-CCL110010AE-200885

ASSEMBLY ACCESSORIES

1327 – Lock thread securing self-locking nut of the L.H. disk	Loctite 270 or equivalent
1326-1327 Adhesive compound to retain cutter-bar O-ring for convenient operation	Cyanocrilate adhesive or Neoprene bond

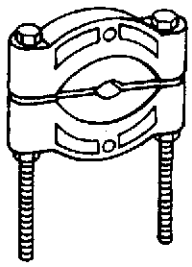
BARRE-CCL110010BE-200885

SPECIAL TOOLS

JDH-6

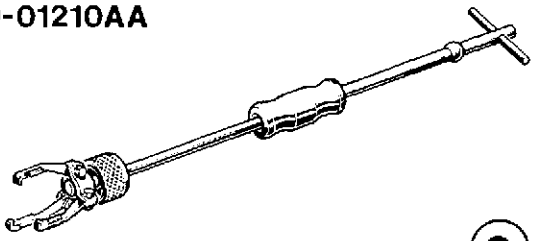
A

D-01267A



B

D-01210AA



C

CC7500

JDE-76A

D

A–To remove O-ring
B–To remove bearing

C–To remove bearing
D–To install or remove bearing and lip seal

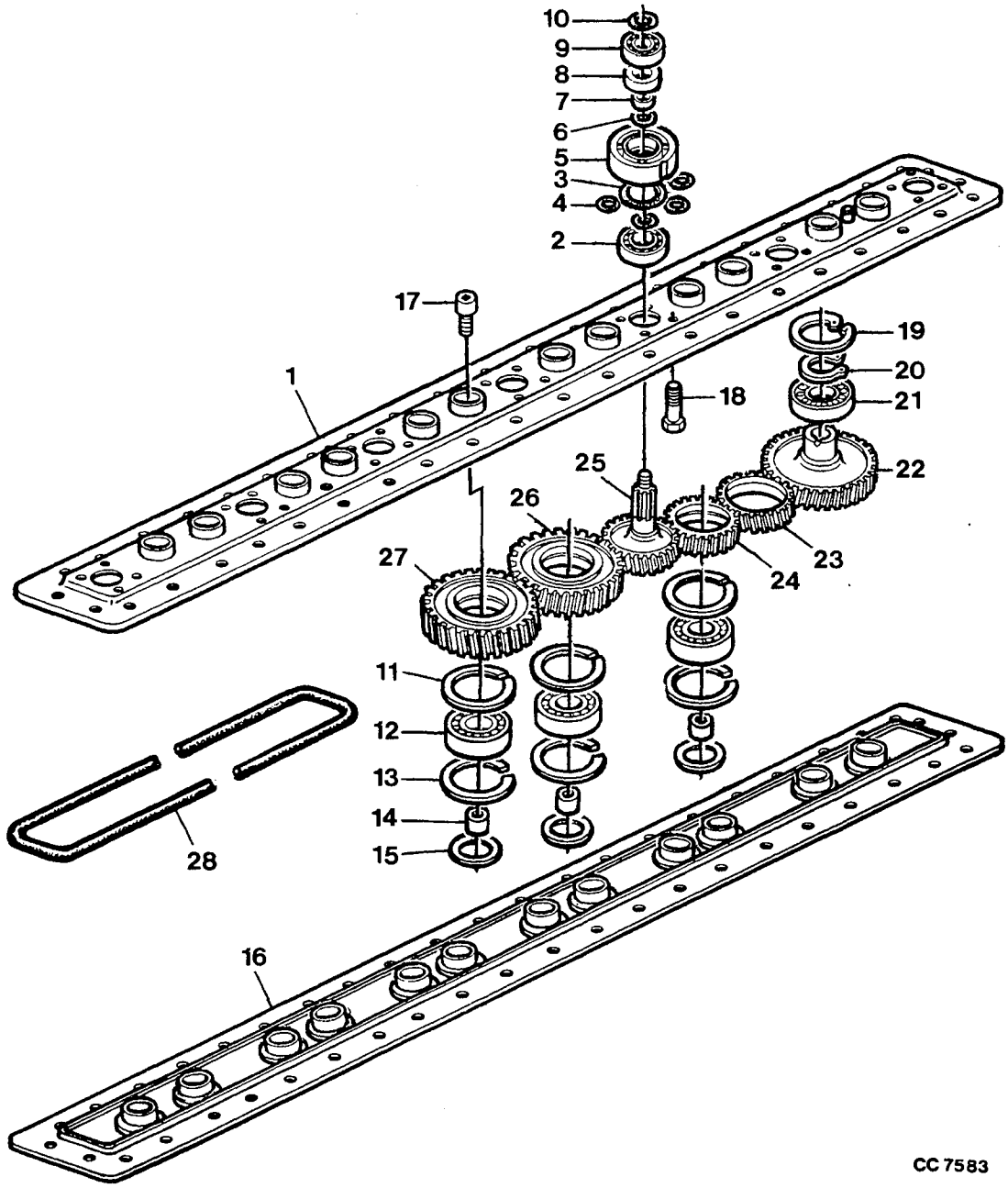
CC7500-CCL110010AE-200885

DESCRIPTION

Two steel case halves enclose a bearing mounted gear assembly. 1326 cutterbar has six disks; The components of the gear assy. are one main drive gear with splined drilled drive shaft, six timed pinion shafts for each disk and intermediate gears to transmit and reverse rotation. 1327 cutterbar has seven disks, there is an additional pinion shaft for the seventh disk and the main drive. All gears are helical machined type and run in oil bath.

BA9RE-CCL110010CE-200885

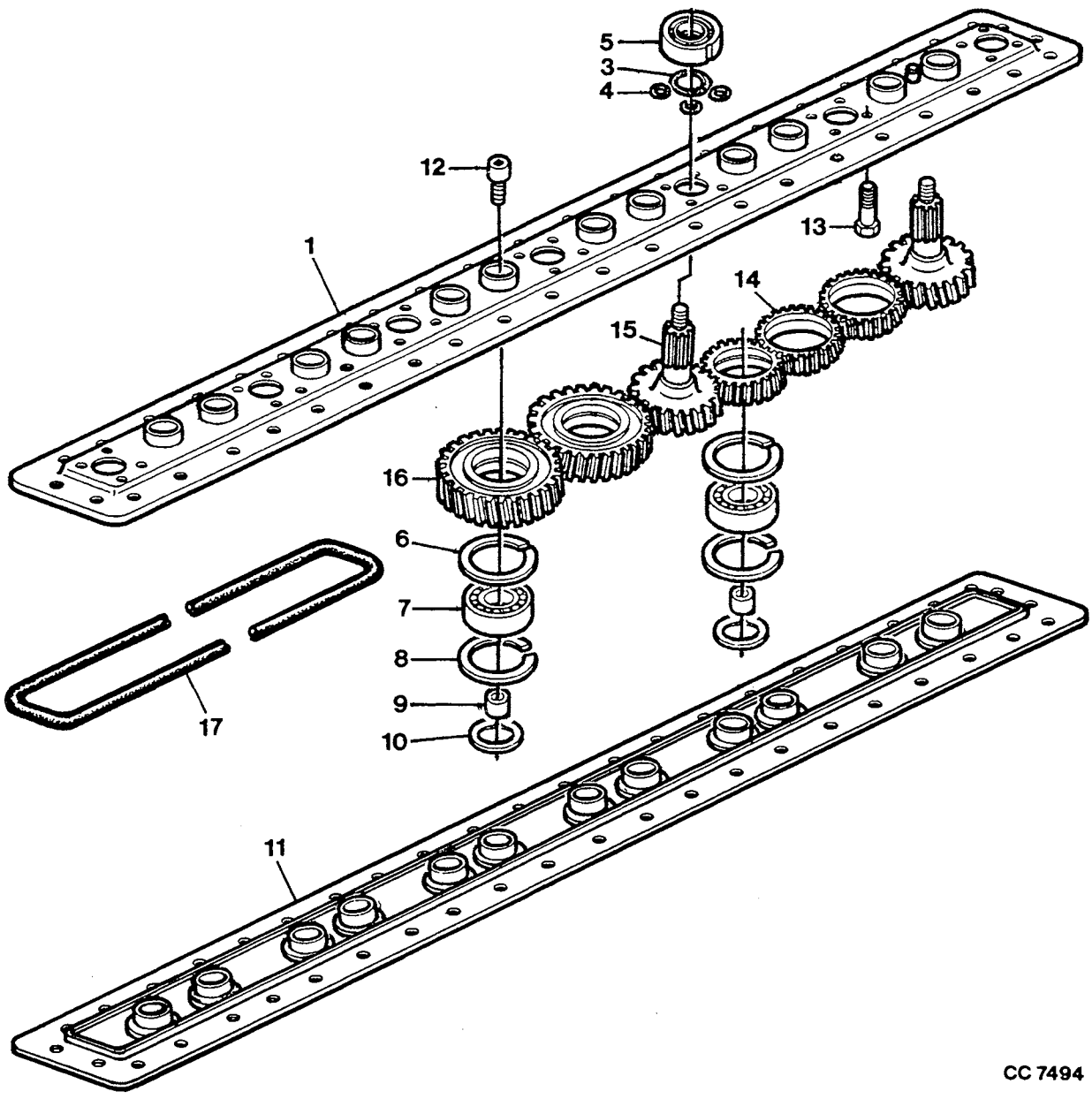
1326 CUTTERBAR, EXPLODED VIEW



1–Upper half of cutterbar	8–Oil seal	15–Washer	22–Drive gear
2–Bearing	9–Bearing	16–Lower half of cutterbar	23–Intermediate gear
3–O-ring	10–Deflector washer	17–Hex. socket screw	24–Intermediate gear
4–O-ring	11–Snap ring	18–Quill cap screw	25–Pinion shaft
5–Quill	12–Bearing	19–Snap ring	26–Intermediate gear
6–O-ring	13–Snap ring	20–Snap ring	27–Intermediate gear
7–Spacer	14–Plastic bushing	21–Drive gear bearing	28–O-ring

CC7583-CCL110010AE-200885

1327 CUTTERBAR, EXPLODED VIEW



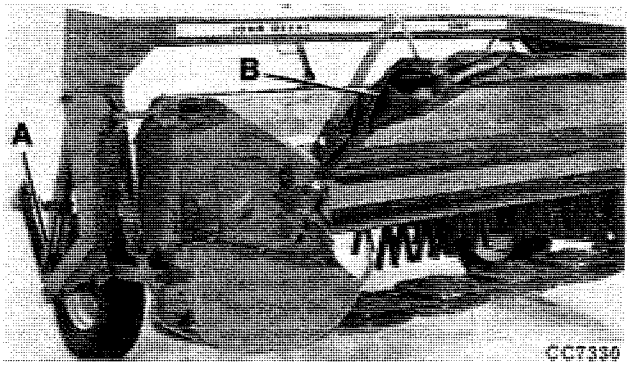
1–Upper half of cutterbar	6–Snap ring	10–Washer	14–Intermediate gear
3–O-ring	7–Bearing	11–Lower half of cutterbar	15–Pinion shaft
4–O-ring	8–Snap ring	12–Hex. socket screw	16–Intermediate gear
5–Quill	9–Plastic bushing	13–Quill cap screw	17–O-ring

CC7494-CCL110010AE-200885

CUTTERBAR REMOVAL

Prepare Machine

Raise the machine and engage safety stops (A).
Open tongue (B).
Lock safety screen in upper position.
Drain cutterbar if necessary (see operator's manual).



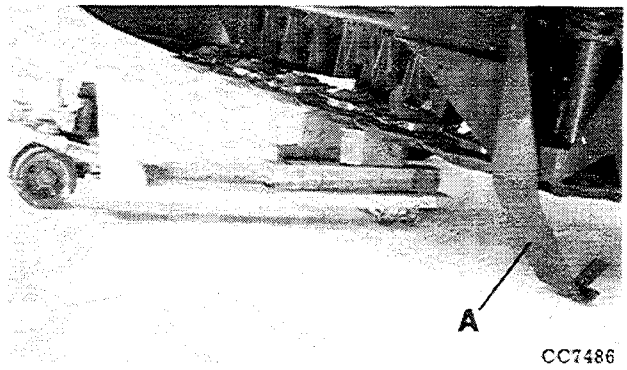
CC7330-CCL110010BE-200885

Access to L.H. Side of Cutterbar

Pivot down L.H. skid shoe (A).

Clean L.H. cutterbar area.

Put an adequate lifting device under the middle of the cutterbar.

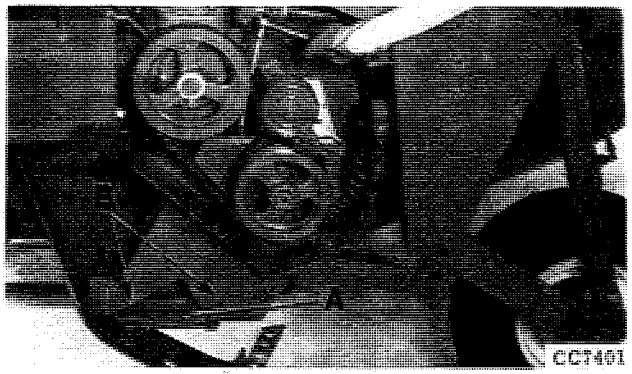


CC7486-CCL110010AE-200885

Loosen L.H. Side of Cutterbar

Remove the two cap screws and nuts (A) and the six lock nuts (B) securing L.H. side of cutterbar.

NOTE: Use access hole for convenience to remove the self-locking nuts.



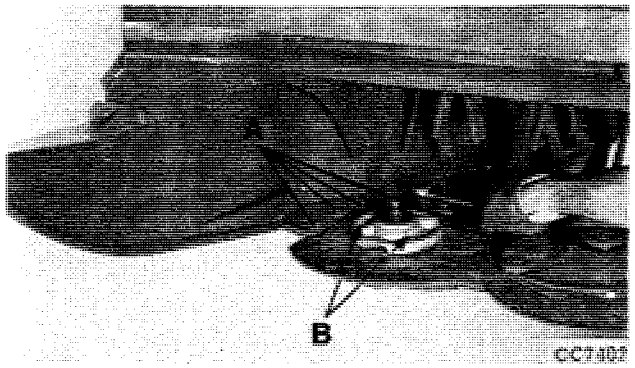
CC7401-CCL110010AE-200885

Loosen R.H. Side of Cutterbar

Remove R.H. disk (see relevant group).

Remove the four cap screws (A) and two lock nuts (B).

NOTE: Length of cap screws is different, note their location for proper reinstallation.



CC7402-CCL110010AE-200885

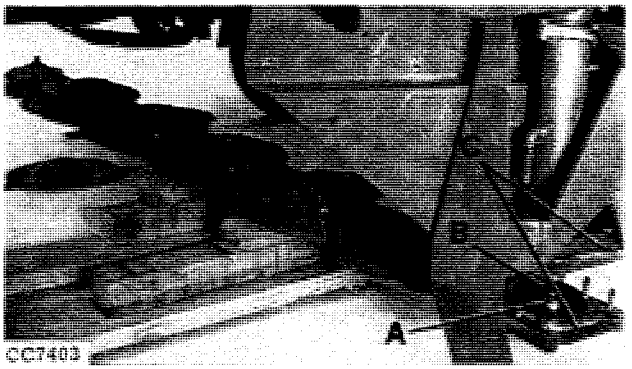
Remove Cutterbar

Lower cutterbar using lifting device.

Remove and discard O-ring (A).

Keep bearing area (B) clean.

Remove and keep plate spacer (C).



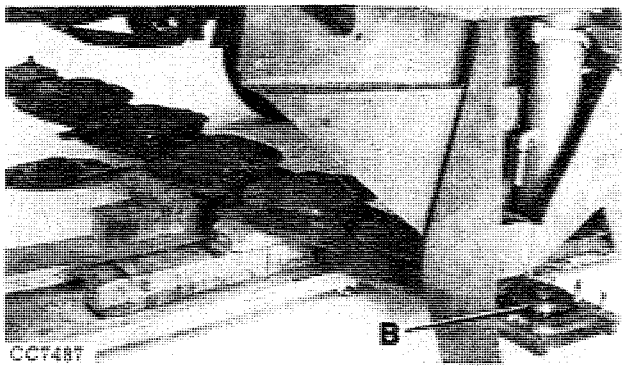
CC7403-CCL110010AE-200885

CUTTERBAR REINSTALLATION

Prepare O-Ring

Clean the O-ring and bearing surface.

Oil a new O-ring (B) and install it.



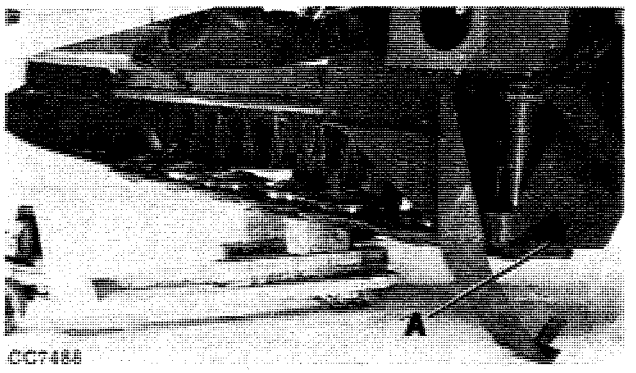
CC7487-CCL110010AE-200885

Secure Cutterbar

Reinstall cutterbar on the machine.

Tighten the four cap screws and two lock nuts to secure R.H. side of cutterbar.

Reinstall plate spacer (A) between cutterbar and bracket.
Bolt L.H. side of cutterbar.
Reinstall L.H. skid shoe.



CC7488-CCL110010AE-200885

Final Assembly

Reinstall R.H. disk (see relevant group).

Reinstall safety screen.

Fill cutterbar with oil if necessary (see operator's manual for proper oil specifications and quantity).

BARRE-CCL110010DE-200885

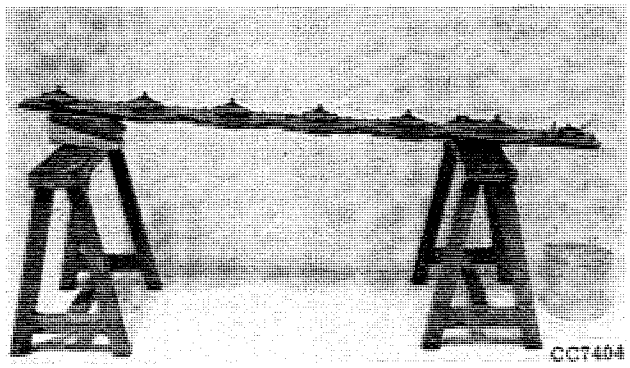
CUTTERBAR SEPARATION

Remove cutterbar (see relevant group).

Remove disks (see relevant group).

Clean entire cutterbar.

Drain cutterbar (see Operator's Manual).



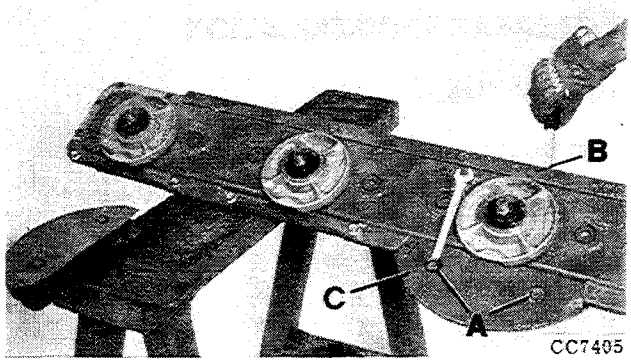
CC7404-CCL110010AE-200885

Remove Skid Plates

Loosen the two cap screws (A).

Remove lock nut (B).

Remove skid plate (C).



CC7405-CCL110010AE-200885

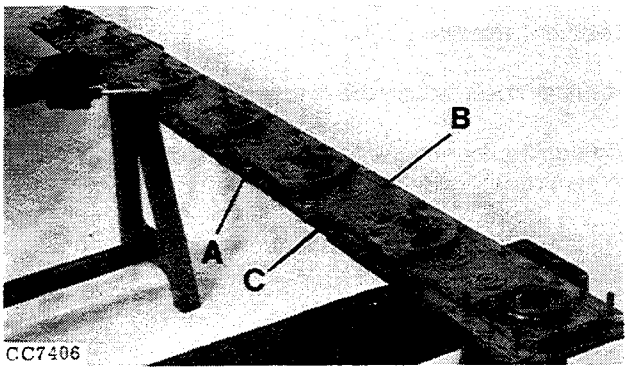
Remove Wear Plates

Remove the ten cap screws and nuts (A).
Remove the thirteen cap screws (B).

NOTE: Do not remove cap screws and nuts in front of each quill bearing.

Remove the four wear plates (C).

NOTE: Length of cap screws is different. Note their location for proper reinstallation.

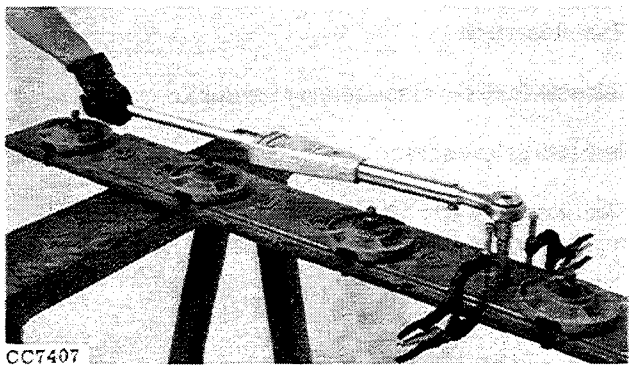


CC7406-CCL110010AE-200885

Remove Hex. Socket Screws

Symetrically remove the hex. socket screws starting from the center toward each end.

IMPORTANT: Maintain each screw area firmly tightened with proper tool while operating.



CC7407-CCL110010AE-200885

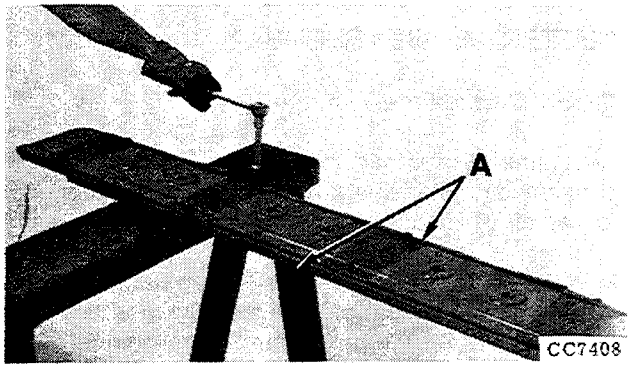
Remove Angles and Reinforcements

Turn over cutterbar.

Remove the remaining nuts and screws.

Remove angles and reinforcements (A).

NOTE: Length of cap screws is different. Note their location for proper reinstallation.



CC7408-CCL110010AE-200885

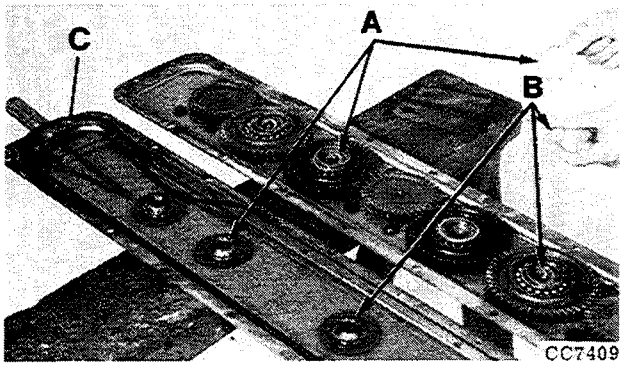
Separate Cutterbar

Gently separate cutterbar halves.

Collect and keep washers (A).

Discard plastic bushings (B).

Remove and discard O-ring (C).



CC7409-CCL110010AE-200885

Clean Cutterbar

Clean cutterbar with a dry cloth.

Remove all foreign material from cutterbar.

Clean the two O-ring areas.

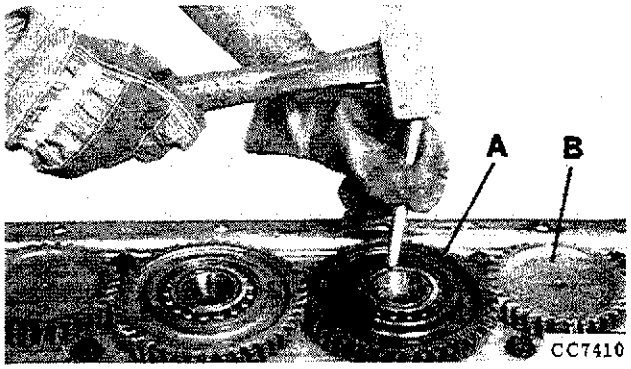
BARRE-CCL110010EE-200885

CUTTERBAR REASSEMBLY

Check Intermediate Gears

Check that all intermediate gears (A) are properly positioned on their shafts. Mark gears with a center punch for retiming, if necessary.

IMPORTANT: All pinion shafts (B) are timed. . Do not change their relative positions. See Step "Pinion Shaft Removal" for timing, if necessary.



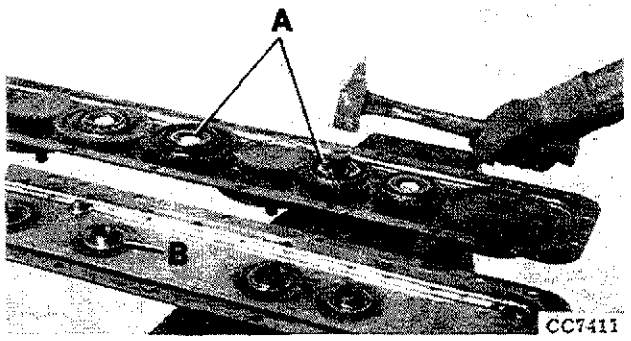
CC7410-CCL110010AE-200885

Install Sealing Bushings

Install new plastic bushings (A).

NOTE: These platic bushings have the dual function of sealing and locking the hex. socket screw. Make sure that they are properly seated.

Use grease to hold washers (B) in position.

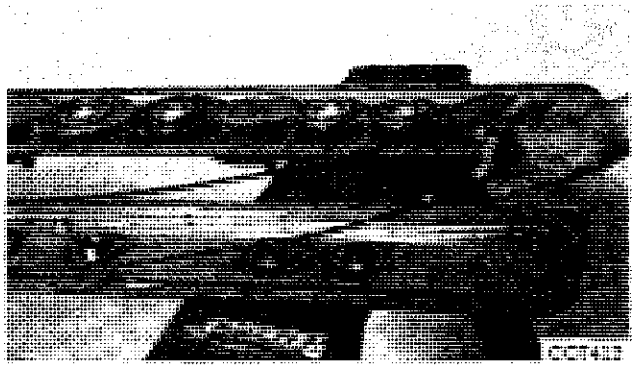


CC7411-CCL110010AE-200885

Install New O-Ring

Install a new O-ring in its housing.

NOTE: Apply specified adhesive compound at four points of the circumference to hold O-rings for convenient installation.



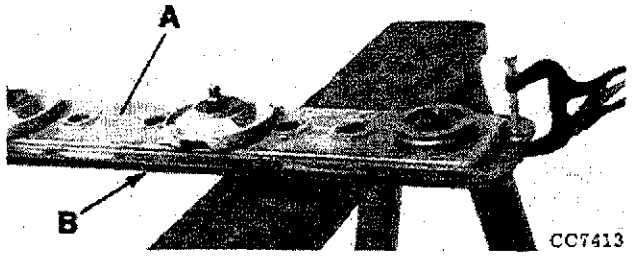
CC7412-CCL110010AE-200885

Reassemble Cutterbar

Reinstall cutterbar by gently turning the upper half (A) over the lower half.

Looking through joint (B) be sure O-ring remains installed in its housing.

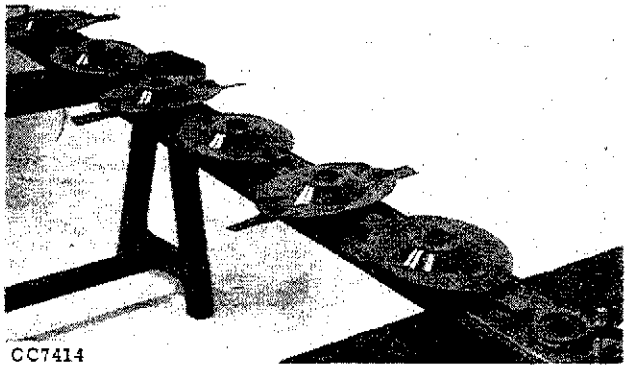
Clamp both sides of the cutterbar.



CC7413-CCL110010AE-200885

Check Timing

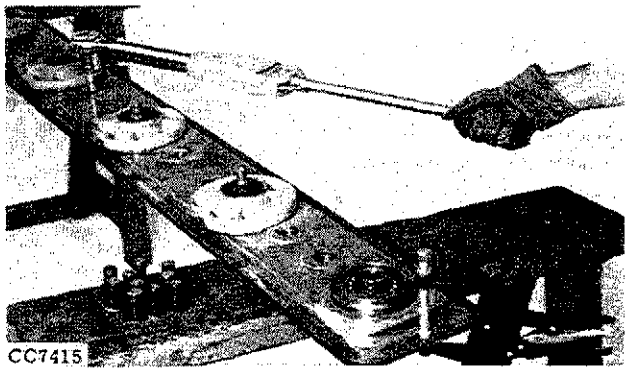
Check disk timing by temporarily installing them. Each disk must be perpendicular to its neighbour. This is a general rule. See Step "Pinion Shaft Removal" for timing, if necessary.



CC7414-CCL110010AE-200885

Reinstall Hex. Socket Screws

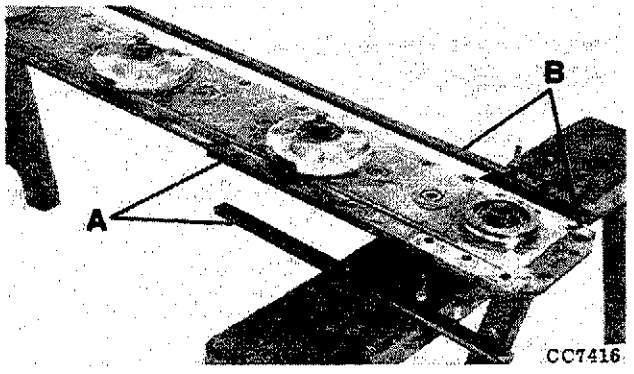
Symetrically reinstall hex. socket screws from the center towards each end. Tighten to the specified torque.



CC7415-CCL110010AE-200885

Reinstall Reinforcements

Prepare the two front reinforcements (A) for reinstallation. Prepare the two rear reinforcements (B) for reinstallation.

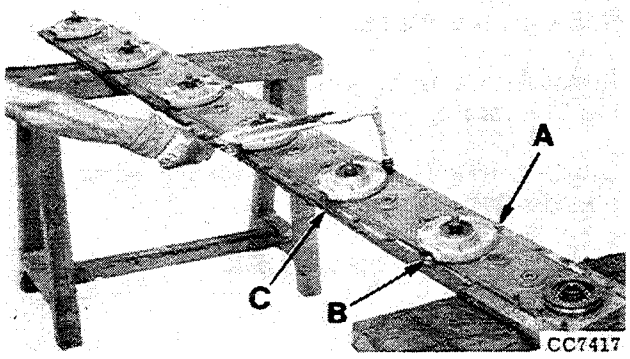


CC7416-CCL110010AE-200885

Bolt Cutterbar Reinforcements

Bolt the rear reinforcement (A) with five cap screws (in front of quill bearings). Bolt the front reinforcement with cap screws (B).
Install the five short reinforcements (C) and bolt them with nuts and cap screws (in front of quill bearings).

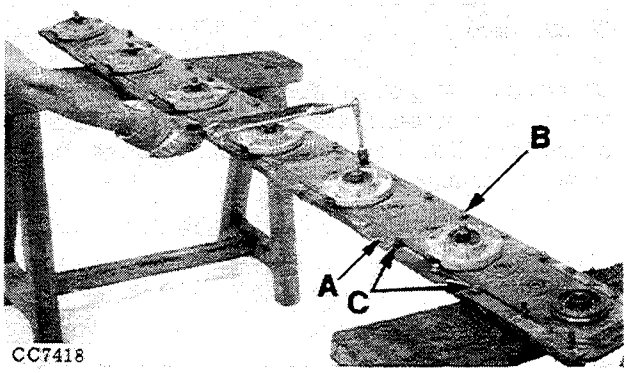
Tighten hardware to specified torque.



CC7417-CCL110010AE-200885

Reinstall Wear Plates

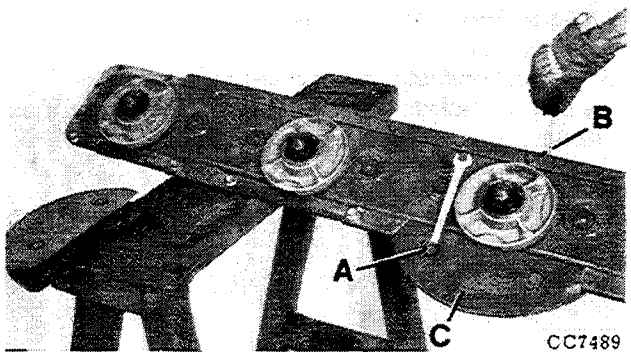
Bolt the five wear plates (A) with nine cap screws and nuts.
Install the eleven cap screws (B) of the rear reinforcement.
Install the two cap screws (C) of the front reinforcement.
Tighten hardware to specified torque.



CC7418-CCL110010AE-200885

Reinstall Skid Plates

Reinstall skid plates (C).
Tighten lock nut (B).
Tighten cap screws (A).
Reinstall cutterbar (see relevant group).



CC7489-CCL110010AE-200885

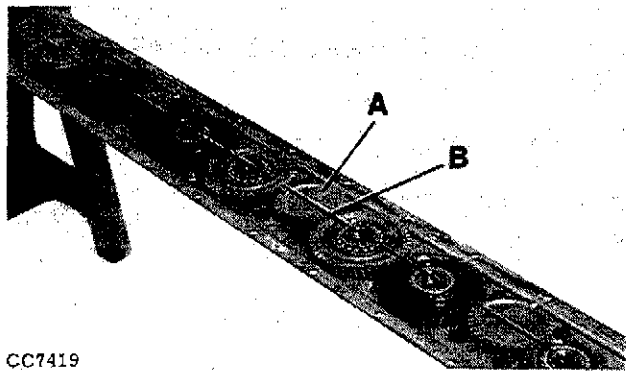
PINION SHAFT REMOVAL AND DISASSEMBLY

Separate cutterbar (see relevant group).

BARRE-CCL110010FE-200885

Time Pinion Shafts

Rotate one pinion shaft (A) to align its engraved mark (B) with the axis of the cutterbar. All other engraved marks on pinion shafts must be perpendicular to their neighbour.
This is a general rule for 1326 and 1327 cutterbars.



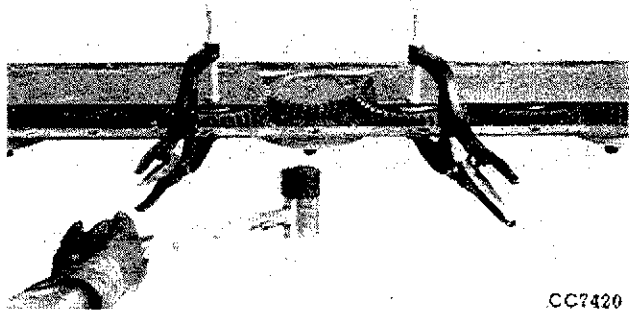
CC7419

CC7419-CCL110010AE-200885

Remove Pinion Shaft

Maintain neighbouring gears firmly clamped with two iron sheets.

Remove pinion shaft with a smooth hammer.



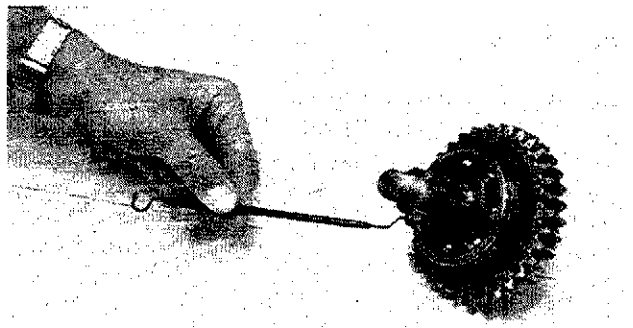
CC7420

CC7420-CCL110010AE-200885

Remove O-Ring

Remove O-ring from pinion shaft.

Use JDH-6 O-ring hook.



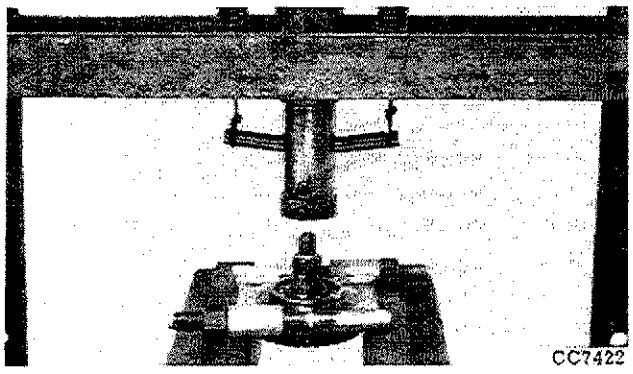
CC7421

CC7421-CCL110010AE-200885

Remove Pinion Shaft Bearing

Press bearing off pinion shaft.

Use D-01267AA bearing puller.



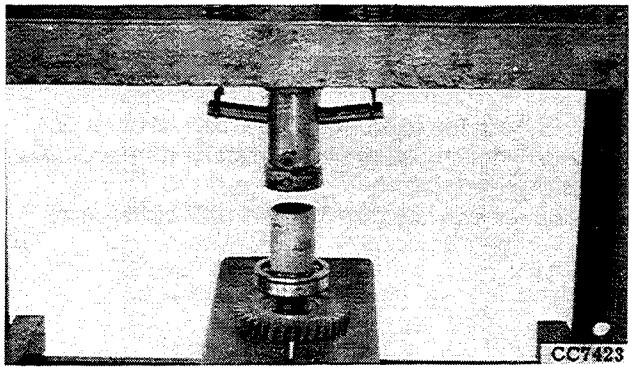
CC7422

CC7422-CCL110010AE-200885

PINION SHAFT REASSEMBLY AND REINSTALLATION

Reinstall Bearing

Press bearing until bearing inner race bottoms against gear shoulder.

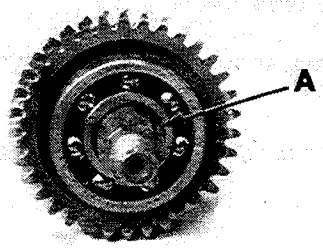


CC7423-CCL110010AE-200885

Reinstall New O-Ring

Oil new O-ring (A), install carefully on shaft and seat against bearing.

NOTE: Shaft splines can be wrapped with thin oiled paper to protect O-ring during assembly.

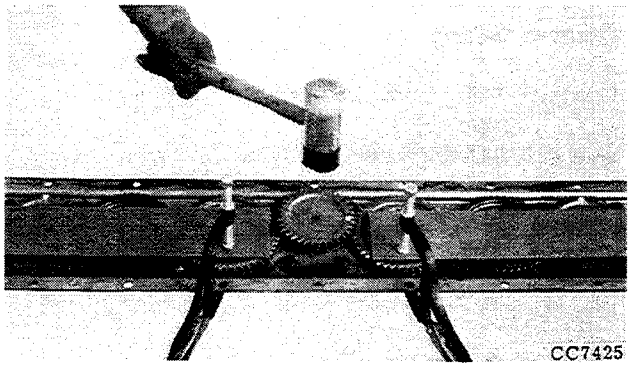


CC7424

CC7424-CCL110010AE-200885

Reinstall Pinion Shaft

Reinstall pinion shaft with a smooth hammer. Check that engraved mark (A) is correctly positioned in its previous direction. Check that all engraved marks on pinion shafts are perpendicular. This is a general rule for 1326 and 1327 cutterbars.
Reassemble cutterbar (see relevant group).



CC7425-CCL110010AE-200885

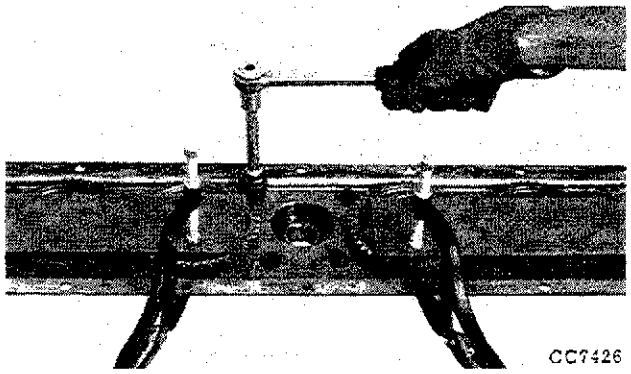
QUILL BEARING REMOVAL AND DISASSEMBLY

Remove pinion shaft (see relevant group).

BARRE-CCL110010GE-200885

Remove Quill Bearing

Remove the four cap screws and remove quill bearing from cutterbar half.



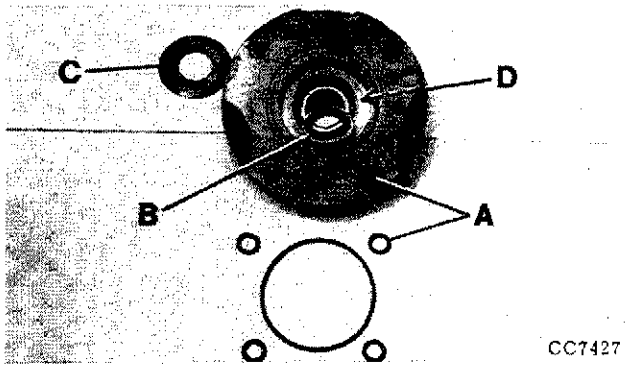
CC7426-CCL110010AE-200885

Remove O-Rings

Remove the four O-rings (A) and discard.

Remove spacer (B) (Only for replaceable quill bearing).

Remove deflector washer (C) located on opposite side (D).

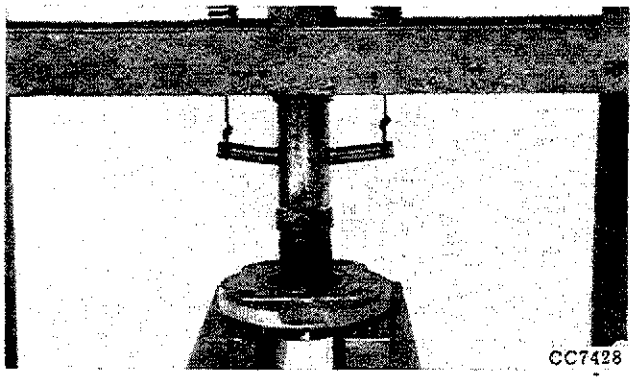


CC7427-CCL110010AE-200885

Remove Bearing
(Only for replaceable quill)

Remove bearing from quill.

Use JDE-76A pilot bearing adapter.

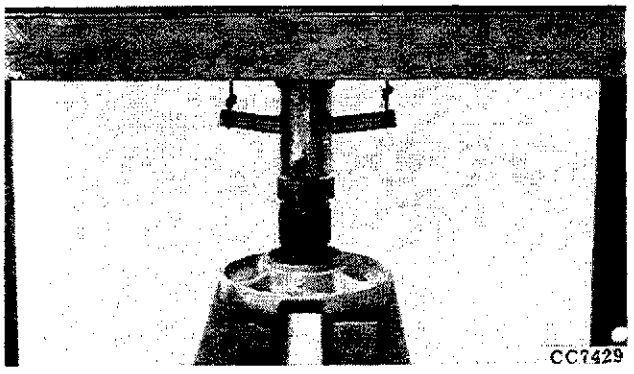


CC7428-CCL110010AE-200885

Remove Lip Seal

Remove lip seal from quill.

Use JDE-76A pilot bearing adapter.



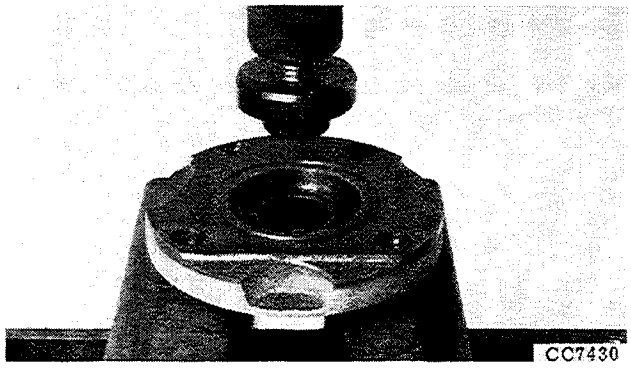
CC7429-CCL110010AE-200885

QUILL BEARING REASSEMBLY AND REINSTALLATION

Reinstall a New Oil Seal

Put grease between the two lips of the seal.
Press a new oil seal into quill until seal lip side is flush with quill surface.
Use JDE-76A pilot bearing adapter.

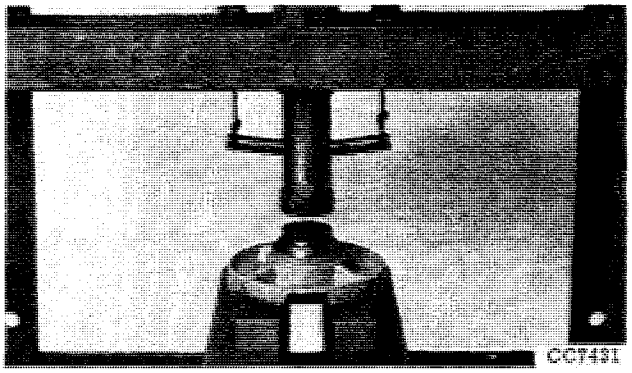
NOTE: Be careful to press lip seal in the right direction.



CC7430-CCL110010AE-200885

Reinstall Bearing

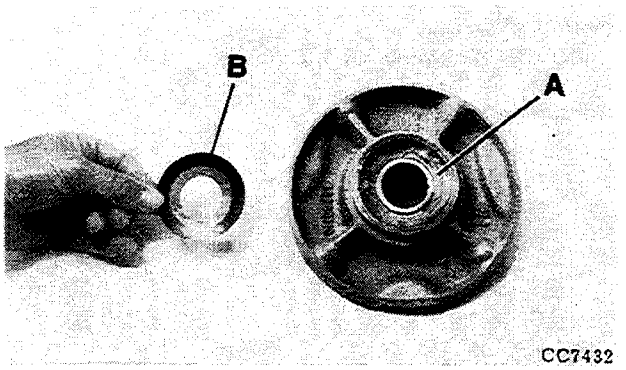
Press bearing until bearing bottoms out against casting shoulder.



CC7431-CCL110010AE-200885

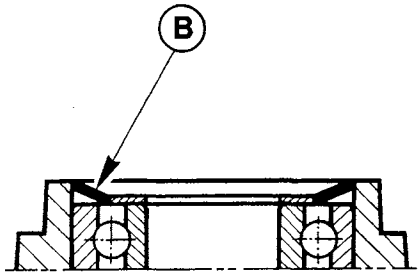
Reinstall Deflector Washer

Put grease in area (A) and install deflector washer (B) into its housing.



CC7432-CCL110010AE-200885

NOTE: Install deflector washer (B) with concave face upward.

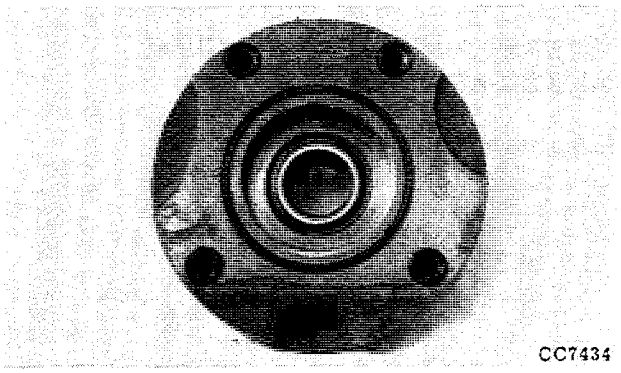


CC 7433

CC7433-CCL110010AE-200885

Reinstall O-Rings

Clean bearing surface.
Oil new O-rings and install them into their housing.

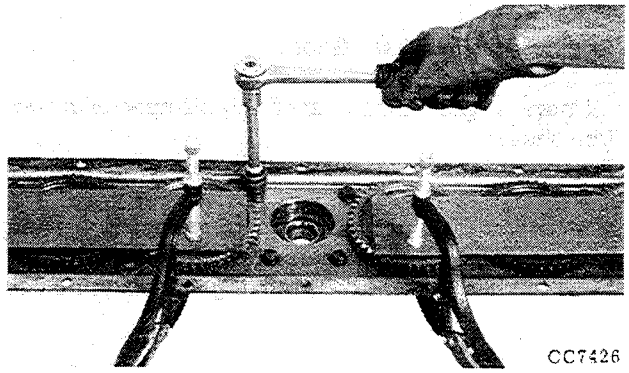


CC7434-CCL110010AE-200885

Reinstall Quill Bearing

Clean quill bearing surface on cutterbar.
Reinstall quill bearing with four new cap screws (new cap screws are coated with lock thread).

NOTE: Do not tighten cap screws.
Quill bearing must be slightly loose.



CC7426-CCL110010BE-200885

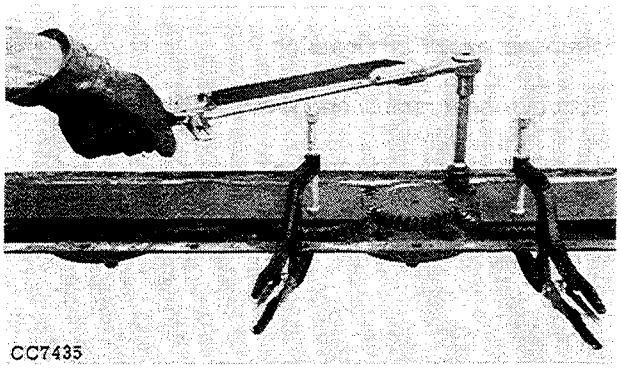
Reinstall Pinion Shaft

Reinstall pinion shaft (see relevant group).

BARRE-CCL110010HE-200885

Bolt Quill Bearing

Tighten the four new cap screws of the quill bearing to specified torque. Reassemble cutterbar (see relevant group).



CC7435-CCL110010AE-200885

INTERMEDIATE GEAR REMOVAL AND DISASSEMBLY

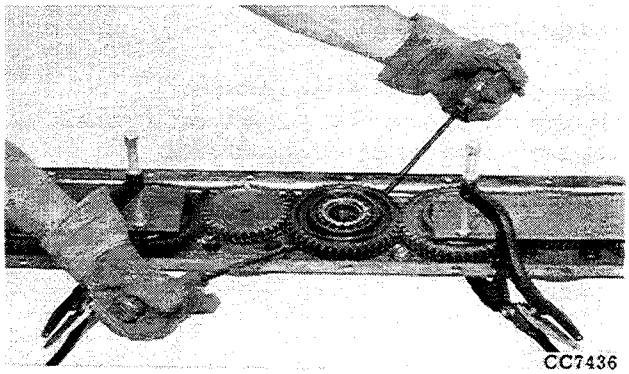
Separate cutterbar (see relevant group).

BARRE-CCL110010IE-200885

Remove Intermediate Gears

Maintain neighbouring gears firmly clamped with two iron sheets
Remove intermediate gears with two levers.

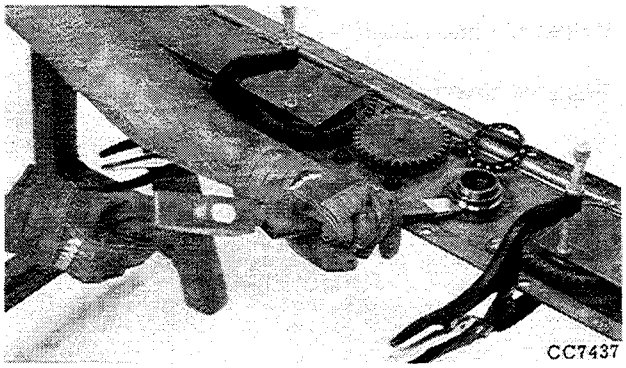
IMPORTANT: Do not modify relative position of neighbouring gears. See Step "Pinion Shaft Removal" for timing if this should occur.



CC7436-CCL110010AE-200885

Separate Inner Race Bearing

Separate inner race bearing from its seat using a chisel.

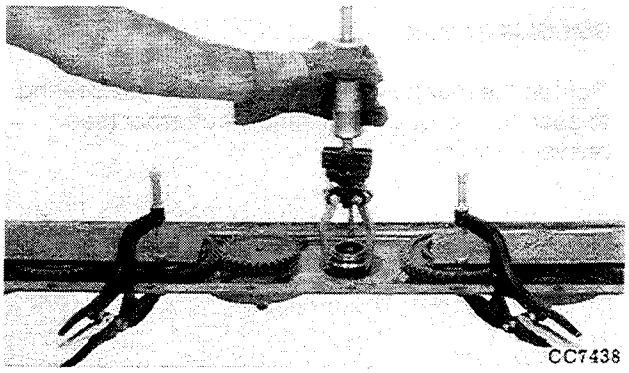


CC7437-CCL110010AE-200885

Remove Inner Race Bearing

Remove inner race bearing with slide hammer.

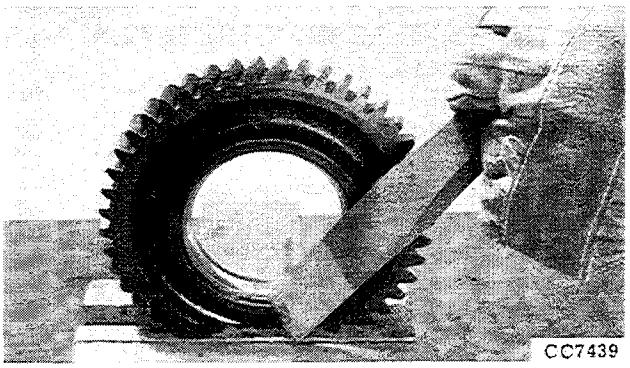
Use D-01210AA slide hammer.



CC7438-CCL110010AE-200885

Intermediate Gear Disassembly

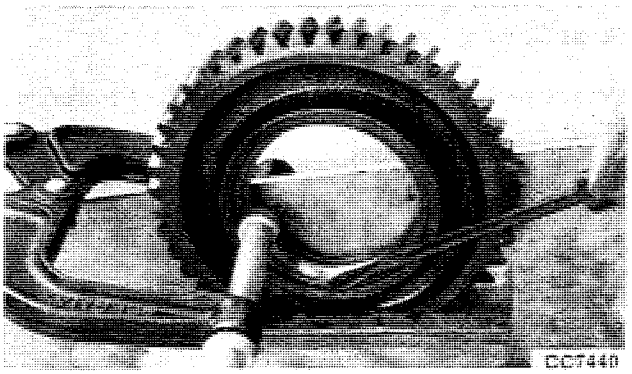
Mark snap ring with a chisel 10 mm (0.4 in.) from one end.



CC7439-CCL110010AE-200885

Bend Snap Ring

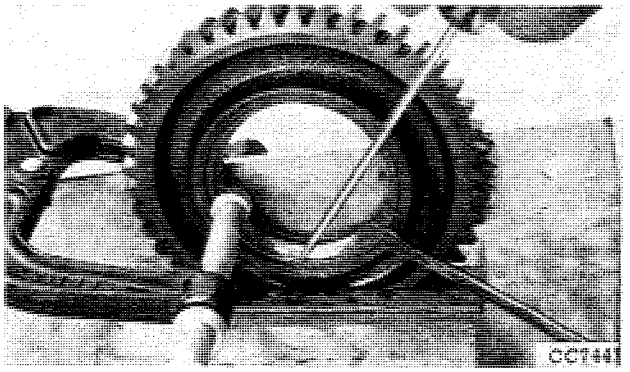
Clamp snap ring 40 mm ((1.05 in.) from opposite marked end, insert a screwdriver into mark and bend snap ring.



CC7440-CCL110010AE-200885

Remove Snap Ring

Use a second thin screwdriver to remove snap ring from its housing.

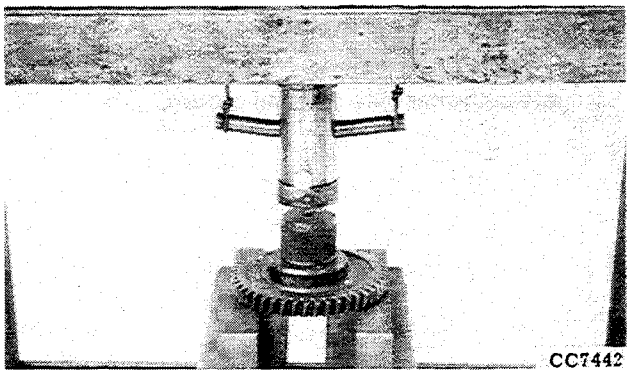


CC7441-CCL110010AE-200885

Remove Bearing

Press bearing out of gear.

Use JDE-76A pilot bearing adapter.



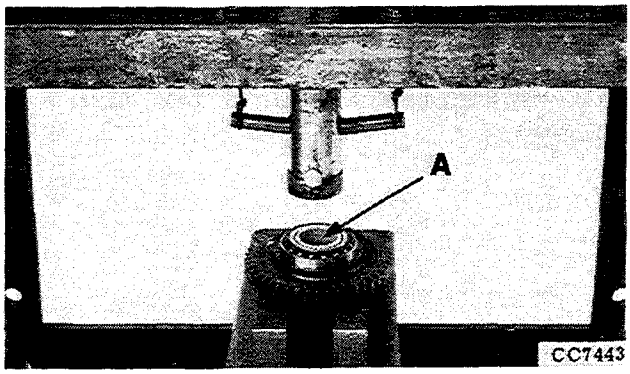
CC7442-CCL110010AE-200885

INTERMEDIATE GEAR REASSEMBLY AND REINSTALLATION

Reinstall New Bearing

Prepare a new bearing to be pressed.

NOTE: In order to avoid separation of the two bearing parts, keep inner plastic bushing (A) in place.

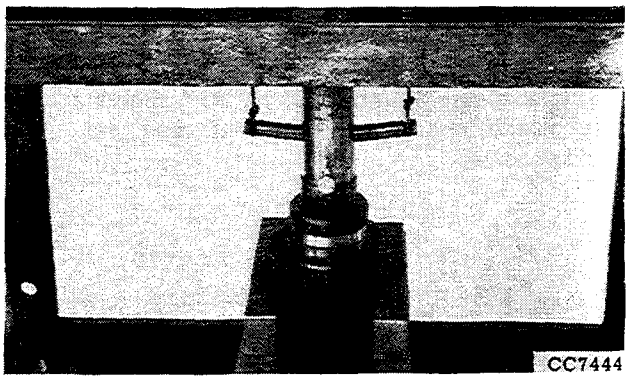


CC7443-CCL110010AE-200885

Press Bearing – Install Snap Ring

Press bearing until it bottoms out against the opposite snap ring.

Install snap ring.



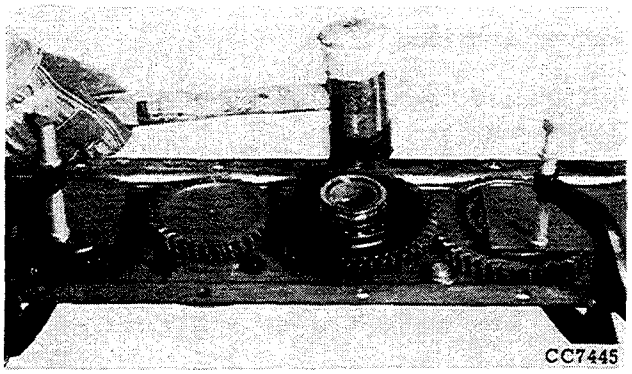
CC7444-CCL110010AE-200885

Reinstall Intermediate Gear

With a smooth hammer reinstall gear on cutterbar until bearing bottoms out against bearing surface.

NOTE: This gear is not symmetrical. Refer to its neighbouring gear for proper side mounting.
NOTE: The old inner bearing race can be used for installing bearing.

Reassemble cutterbar (see relevant group).



CC7445-CCL110010AE-200885

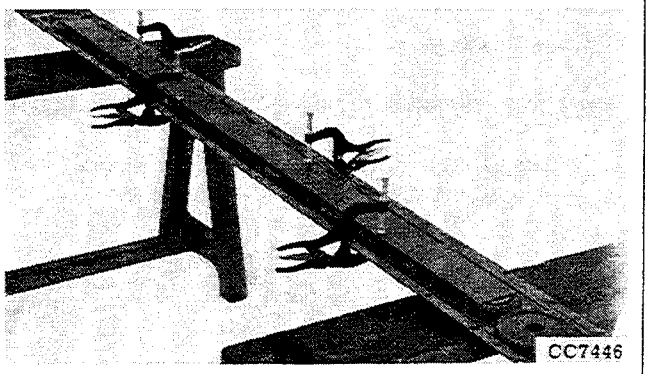
DRIVE GEAR REMOVAL

Separate cutterbar (see relevant group).

BARRE-CCL110010JE-200885

Retain Gears

Retain gears with an iron sheet.



CC7446-CCL110010AE-200885

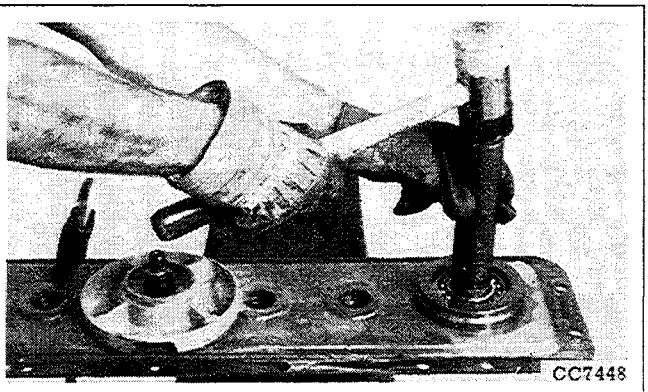
Remove Drive Gear Snap Ring

Gently turn over cutterbar.
With snap ring pliers remove drive gear snap ring.

CC7447-CCL110010AE-200885

Remove Drive Gear

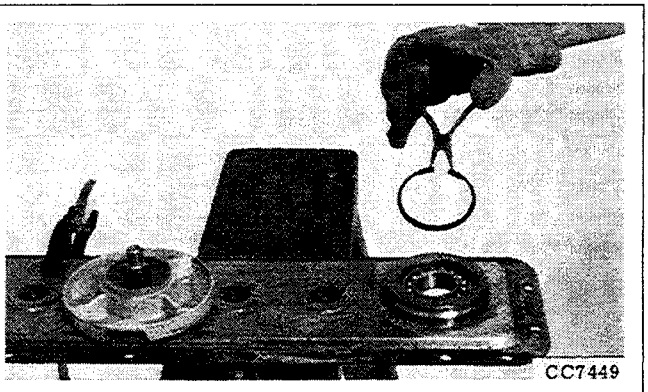
Remove drive gear from bearing.



CC7448-CCL110010AE-200885

Remove Bearing Snap Ring

With snap ring pliers remove snap ring.

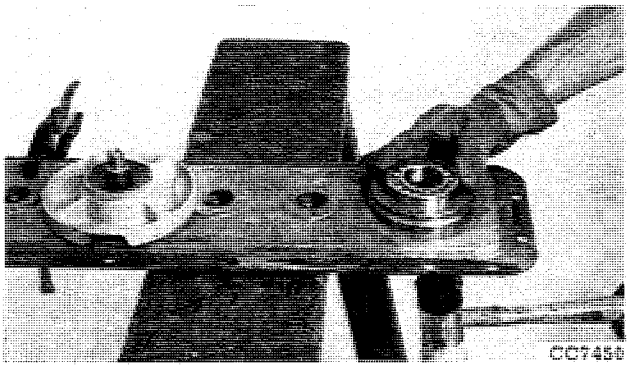


CC7449-CCL110010AE-200885

Remove Bearing

With a smooth hammer remove bearing from its housing.

NOTE: Bearing is not press fitted and this operation does normally not require much force.

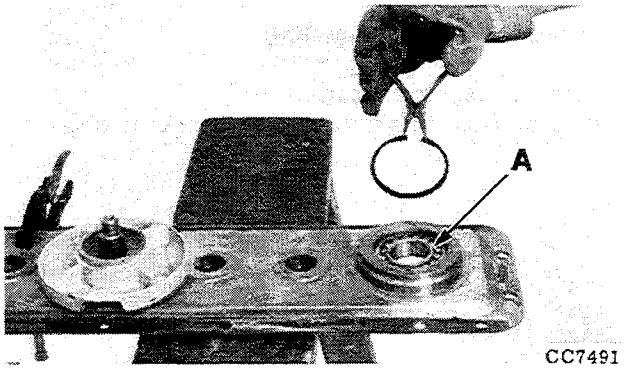


CC7450-CCL110010AE-200885

DRIVE GEAR REINSTALLATION

Grease bearing (A) and reinstall it into its housing.

With snap ring pliers reinstall snap ring.

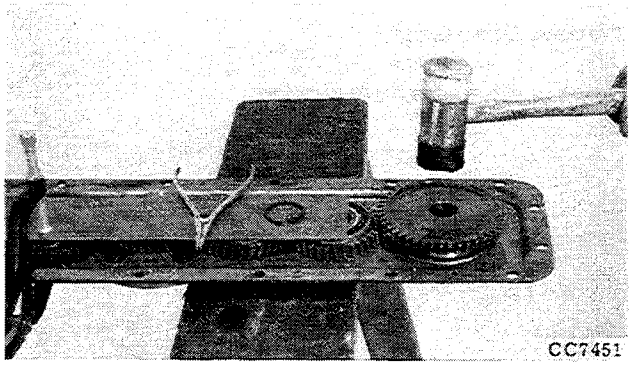


CC7491-CCL110010AE-200885

Gently turn over cutterbar half.

Reinstall drive gear.

NOTE: There is no timing for this gear.



CC7451-CCL110010AE-200885

Reinstall Snap Ring

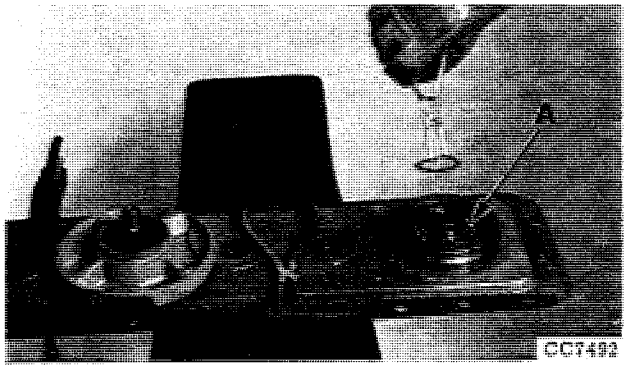
Gently turn over cutterbar half.

With snap ring pliers reinstall snap ring.

Grease area (A).

Turn over cutterbar and remove iron sheet.

Reassemble cutterbar (see relevant group).



CC7492-CCL110010AE-200885

CUTTERBAR REMOVAL

Prepare Machine

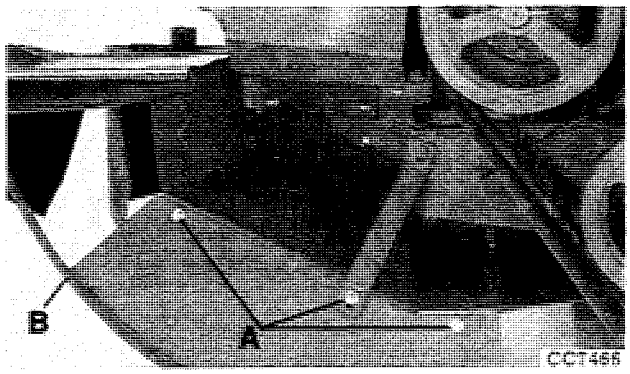
Raise the machine and engage safety latches (A).
Open tongue.
Drain cutterbar, if necessary (see operator's manual).

CC7465-CCL110010AE-200885

Remove Left-Hand Divider

Remove the three cap screws (A).

Remove L.H. divider (B).

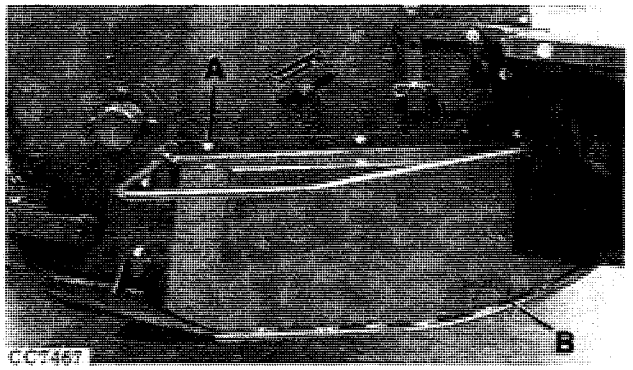


CC7466-CCL110010AE-200885

Remove Right-Hand Divider

Remove cap screws (A).

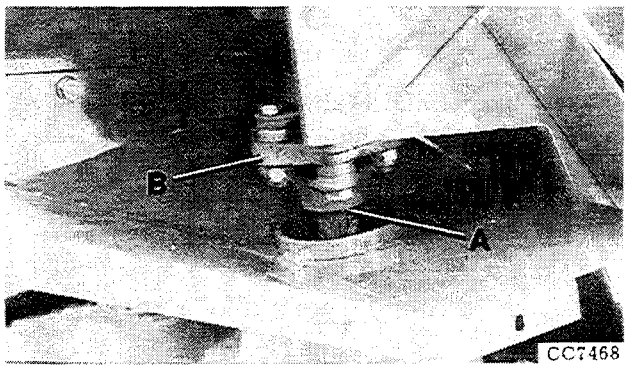
Remove R.H. divider (B).



CC7467-CCL110010AE-200885

Disconnect Main Shaft

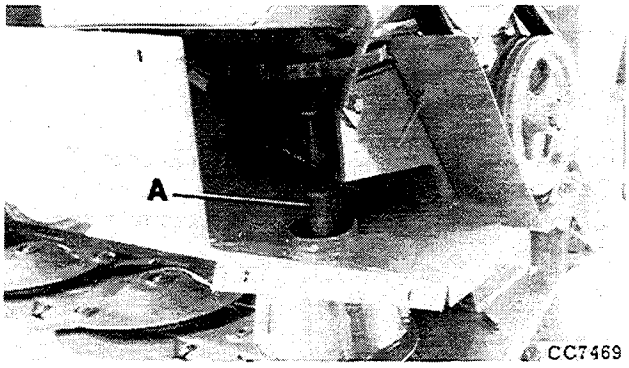
Remove spring pin (A). Disconnect spider from attenuator (B) and remove spider.



CC7468-CCL110010AE-200885

Remove Cutterbar Shaft

Remove drive shaft (A).

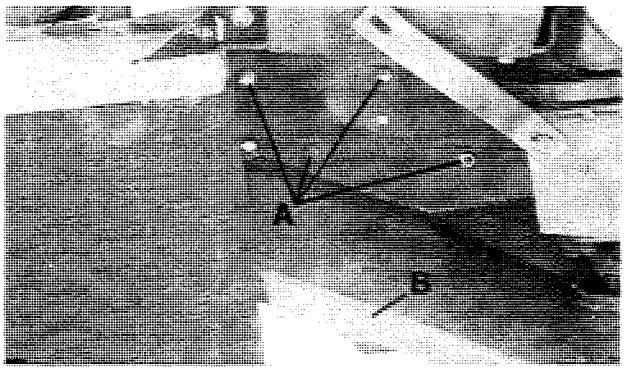


CC7469-CCL110010AE-200885

Remove Upper Shield

Remove cap screws (A).

Remove upper shield (B).

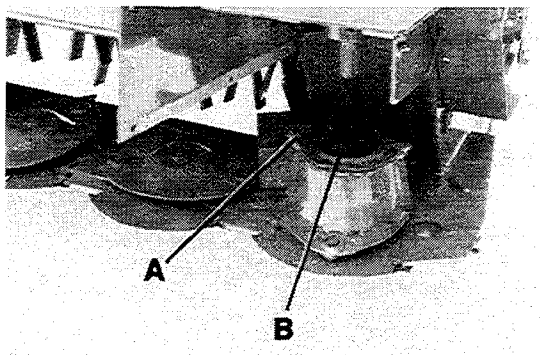


CC7470-CCL110010AE-200885

Remove Disk Deflector

Remove cap screws (A).

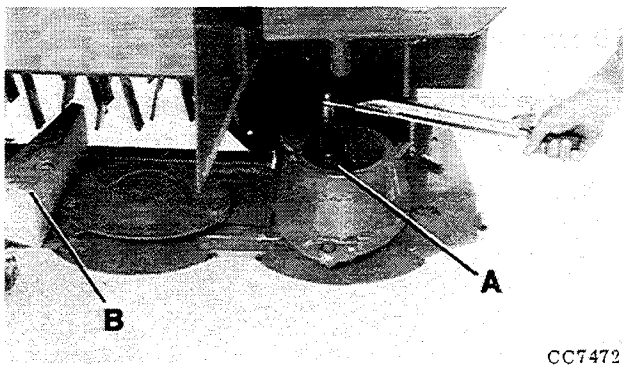
Remove upper deflector (B).



CC7471-CCL110010AE-200885

Remove Attenuator

Remove spider with its attenuator (A) from the drive disk. Block the disks as shown in (B).

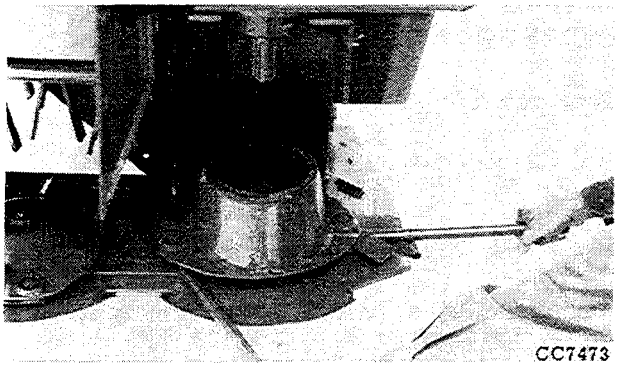


CC7472-CCL110010AE-200885

Remove Outer Disks

Remove right-hand disk (see relevant group).

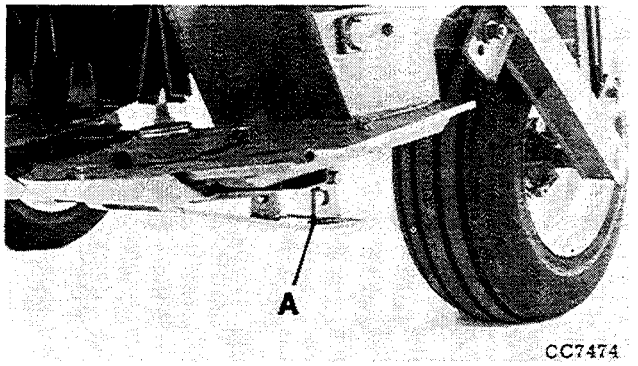
Remove left-hand disks in the same manner.



CC7473-CCL110010AE-200885

Remove Adjustable Skid Shoes

Remove adjustable left-hand and right-hand skid shoes (A).

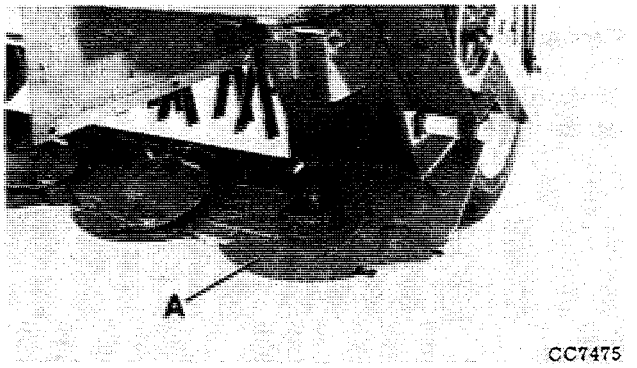


CC7474-CCL110010AE-200885

Remove Disk Shoes

Remove left-hand and right-hand disk shoes (A).

Clean both sides of cutterbar.



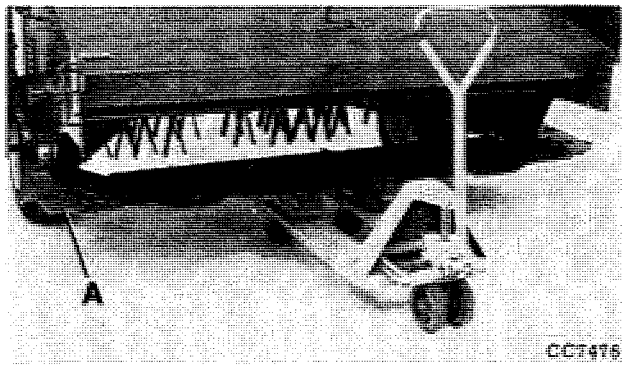
CC7475-CCL110010AE-200885

Remove Cutterbar

Put an adequate lifting device under the middle of the cutterbar.

Remove cap screws and nuts (A) (four on right-hand and five on left-hand side). Carefully keep them to be reinstalled in the same place.

Remove cutterbar.



CC7476-CCL110010AE-200885

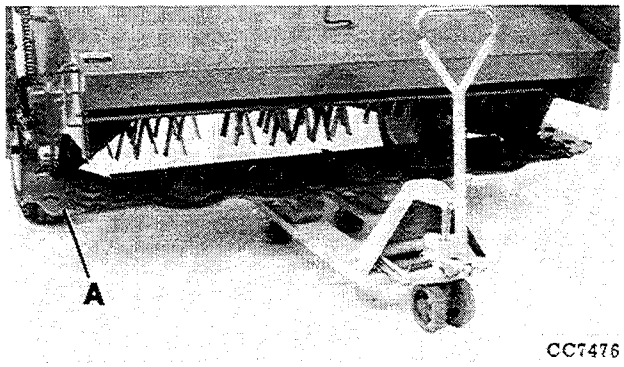
CUTTERBAR REINSTALLATION

Secure Cutterbar

Reinstall cutterbar on machine using the lifting device.

Tighten cap screws (A) to the specified torque.

NOTE: For proper tightening immobilize cap screw and apply the torque to the nut.



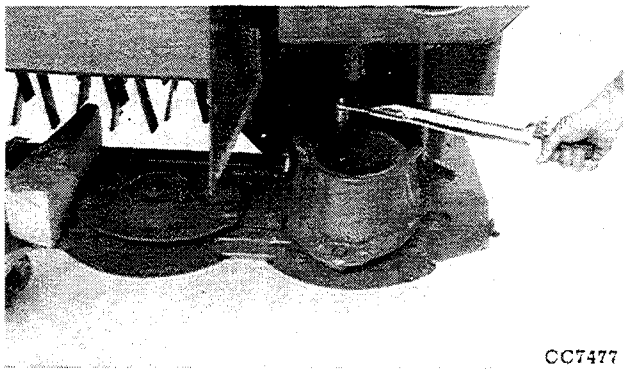
CC7476

CC7476-CCL110010BE-200885

Reinstall Disk Shoes and Disks

Reinstall left-hand and right-hand disk shoes (reverse the disk shoe removal step).
Reinstall right-hand disk (see relevant group).

Reinstall left-hand disk. Refer to instructions given for right-hand disk. Use specified lock thread for nut on this disk.



CC7477

CC7477-CCL110010AE-200885

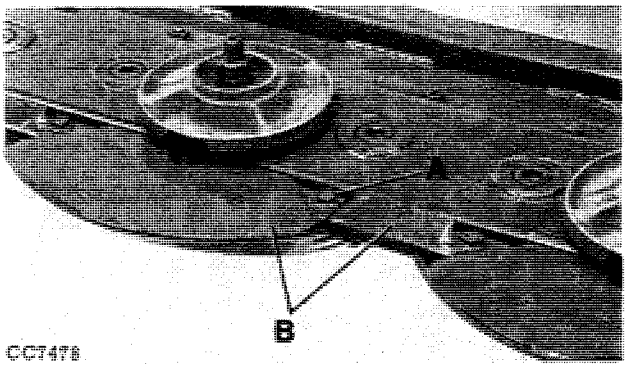
Final Assembly

Reverse disassembly procedure for installation of remaining parts.

BARRE-CCL110010KE-200885

CUTTERBAR SEPARATION

Remove cutterbar (see relevant group).
Remove disks (see relevant group).
Drain cutterbar (see operator's manual).
Remove the remaining disk shoes and cleaning plates (B) by removing cap screws and nuts (A).

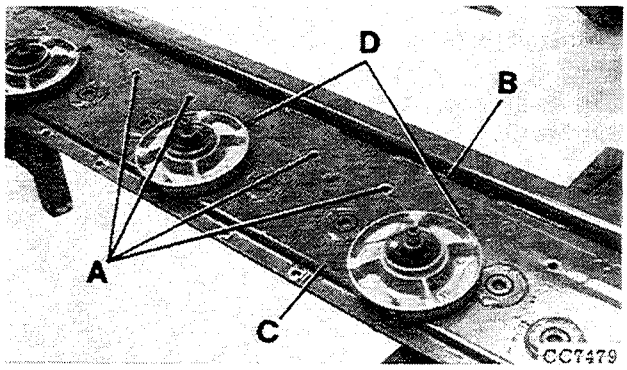


CC7478

CC7478-CCL110010AE-200885

Remove Stiffener

Remove all bolts (A) to separate stiffener (B) from cutterbar (C). Do not remove bolts (D) which are located in front of each disk hub. Clean cutterbar.



CC7479-CCL110010AE-200885

Separate Cutterbar

Refer to 1326 "Cutterbar Separation" group at step "Remove Hex. Socket Screws" since the process is identical.

BARRE-CCL110010LE-200885

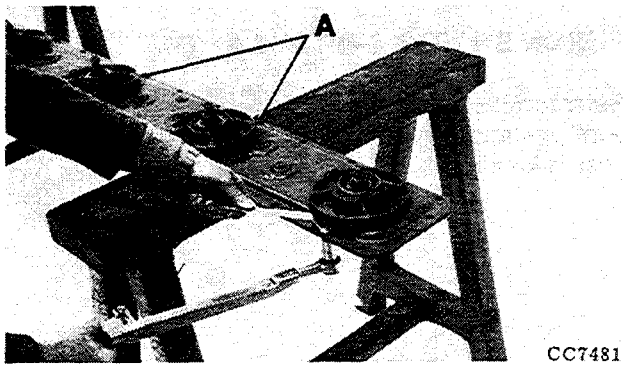
CUTTERBAR REASSEMBLY

Refer to 1326 "Cutterbar Reassembly" group up to step "Reinstall Hex. Socket Screws" since the process is identical.

BARRE-CCL110010ME-200885

Secure Cutterbar

Reinstall cap screws in front of each quill bearing and tighten to specified torque.



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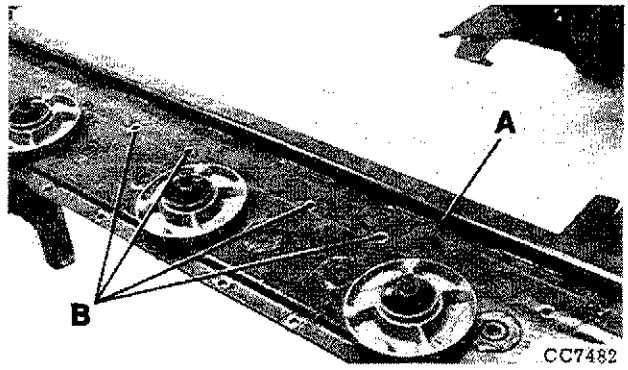
Reinstall Stiffener

Secure stiffener (A) to cutterbar with cap screws (B).



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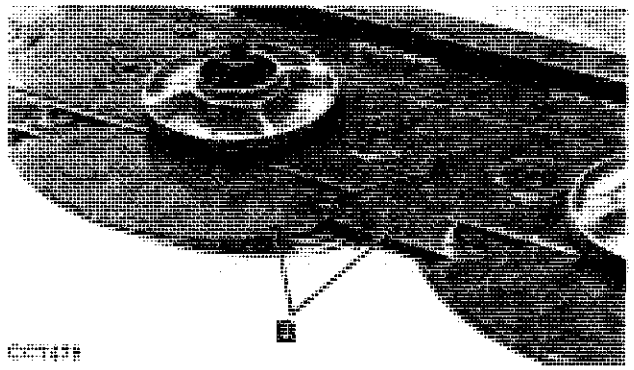
Reinstall Disk Shoes

Reinstall and secure the remaining disk shoes (B) and cleaning plates.

Tighten cap screws (A).



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PINION SHAFT REMOVAL

Refer to 1326 "Pinion Shaft Removal and Disassembly" group up to step "Remove Pinion Shaft" since the process is identical.

BARRE-CCL110010OE-200885

PINION SHAFT REINSTALLATION

Refer to 1326 "Pinion Shaft Reassembly and Reinstallation" at step "Reinstall Pinion Shaft" since the process is identical.

BARRE-CCL110010PE-200885

QUILL BEARING REMOVAL

Refer to 1326 "Quill Bearing Removal and Disassembly" up to step "Remove O-rings" since the process is identical.

BARRE-CCL110010QE-200885

QUILL BEARING REINSTALLATION

Refer to 1326 "Quill Bearing Reassembly and Reinstallation" from step "Reinstall Deflector Washer" since the process is identical.

BARRE-CCL110010RE-200885

INTERMEDIATE GEAR REMOVAL AND DISASSEMBLY

Refer to 1326 "Intermediate Gear Removal and Disassembly" since the process is identical.

BARRE-CCL110010SE-200885

INTERMEDIATE GEAR REASSEMBLY AND REINSTALLATION

Refer to 1326 "Intermediate Gear Reassembly and Reinstallation" since the process is identical.

BARRE-CCL110010TE-200885

Section 110
HYDRAULIC SYSTEM – REPAIR

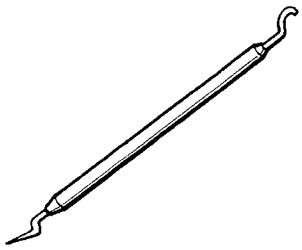
CONTENTS OF THIS SECTION IN GROUPS

05 – LIFT CYLINDERS

HYDRAUL-CCL111001AE-200885

SPECIAL TOOLS

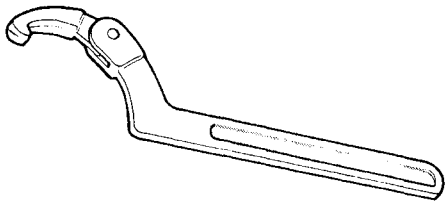
JDH-6



(A)

A–To remove O-ring

D-05112ST



(B)

CC7501

B–To remove cylinder head

CC7501-CCL111005AE-200885

TORQUE FOR HYDRAULIC FITTINGS

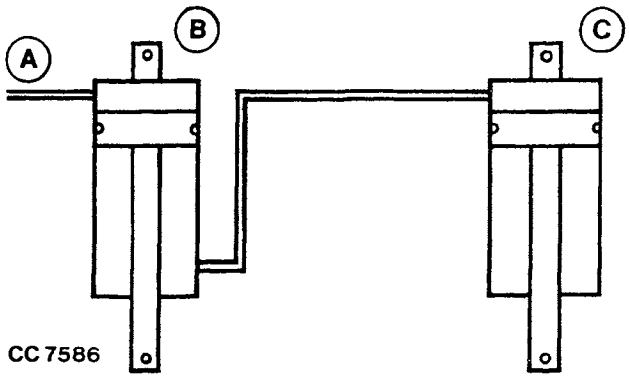
Hydraulic fittings to cylinder barrel	21 to 24 Nm (15.5 to 17.7 ft-lb)

VERINS-CCL111005AE-200885

LIFT CYLINDER DESCRIPTION

The lift system consists of a single line (A) from the tractor to a master double acting cylinder (B) and a slave single acting cylinder (C).

The two cylinder lines are connected when the master cylinder is fully extended.



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LIFT CYLINDER DISASSEMBLY AND INSPECTION RECOMMENDATIONS

In general, cleanliness is the most important factor in hydraulic repair. Wash the parts in a safe solvent, then dry with compressed air. Inspect parts for damage. Refer to FOS manual for proper diagnosing of damage. Lubricate parts before assembly and reinstallation. Tighten hydraulic fittings to the specified torque. Reinstall hoses exactly as they were.

VERINS-CCL111005BE-200885

LIFT CYLINDER REMOVAL (Right and Left)

Raise the machine frame with an hydraulic jack until frame raises the platform (F).

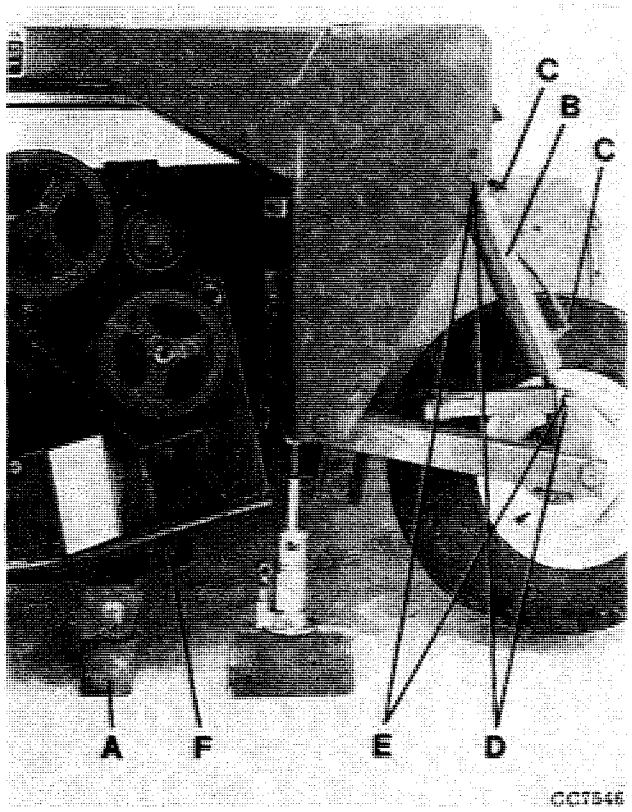
Shim platform with wooden shims (A).

Slowly lower machine until cylinder (B) is getting loose (manually move it).

Disconnect the two hoses (C).

Remove cotter pins (D) and the two pins (E).

Remove cylinder (B).



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LIFT CYLINDER REINSTALLATION

Reverse the previous cylinder removal steps for cylinder reinstallation.

VERINS-CCL111005CE-200885

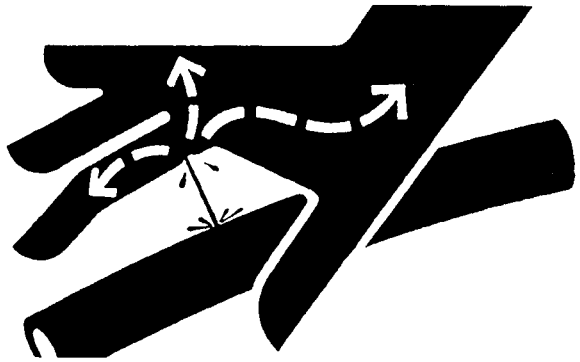
BLEED HYDRAULIC LINE

Connect hydraulic line to the tractor hydraulic supply.
Raise the machine and keep pressure in hydraulic line.
Unscrew right-hand side fitting slightly until all air has escaped.
Tighten fitting after bleeding.
Relieve pressure in hydraulic line.

VERINS-CCL111005DE-200885

AVOID HIGH PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pin holes and nozzles which eject fluids under high pressure. Use a piece of card- board or paper to search for leaks. Do not use your hand. If any fluid is injected into the skin, consult a doctor immediately, otherwise this may result in a serious infection.



L 102 134

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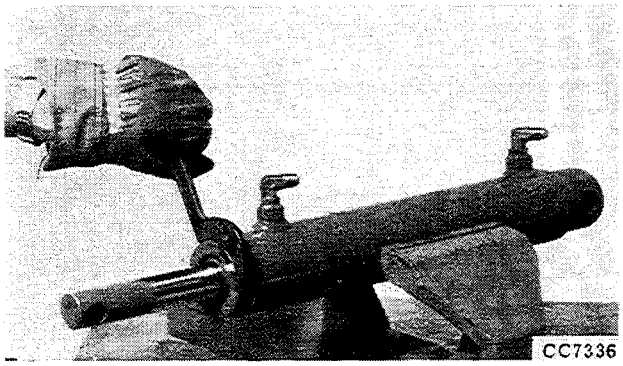
LIFT CYLINDER DISASSEMBLY (Right and Left)

Remove cylinder (see relevant group).
Clamp cylinder in a vise.
Unscrew cylinder head and remove it.
Remove rod.
Use hook spanner D-05112ST.



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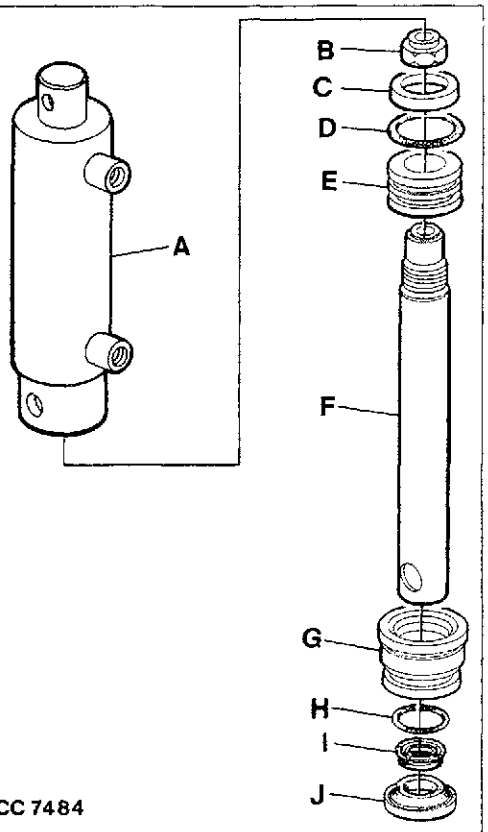
LEFT-HAND LIFT CYLINDER, EXPLODED VIEW

A–Hydraulic cylinder barrel
B–Lock nut
C–Seal
D–O-ring
E–Piston
F–Rod
G–Cylinder head
H–O-ring
I–Seal
J–Seal



CC 7484

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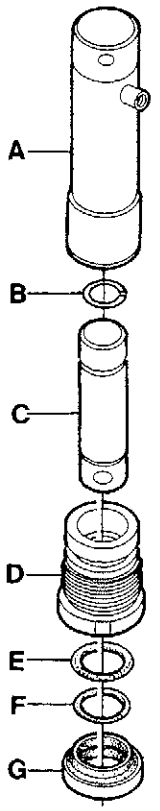
RIGHT-HAND LIFT CYLINDER, EXPLODED VIEW

A–Hydraulic cylinder barrel
B–Snap ring
C–Rod
D–Cylinder head
E–O-ring
F–Piston ring
G–Seal



CC7485

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LIFT CYLINDER REASSEMBLY

Reverse cylinder disassembly steps for cylinder reassembly.

VERINS-CCL111005EE-200885


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