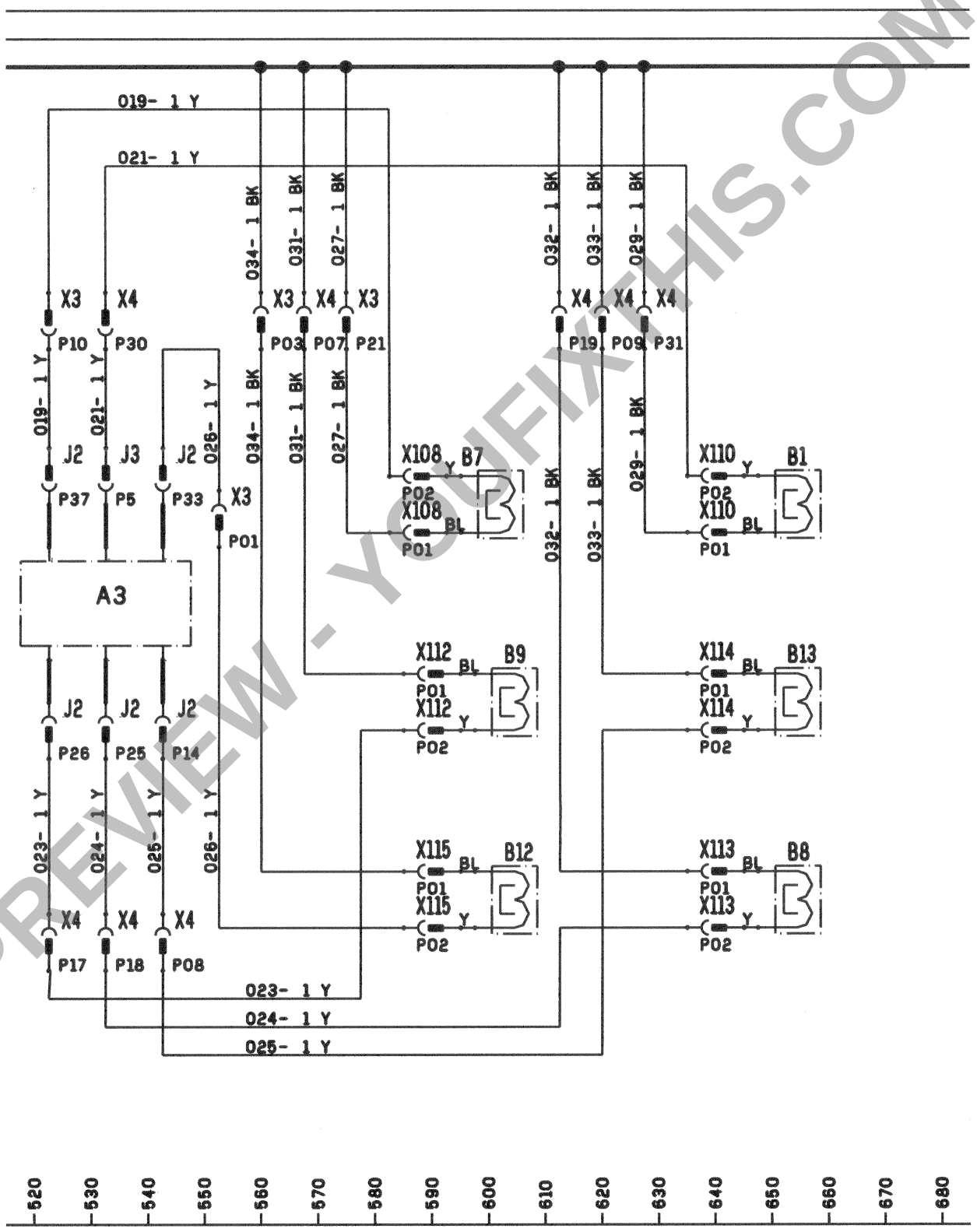
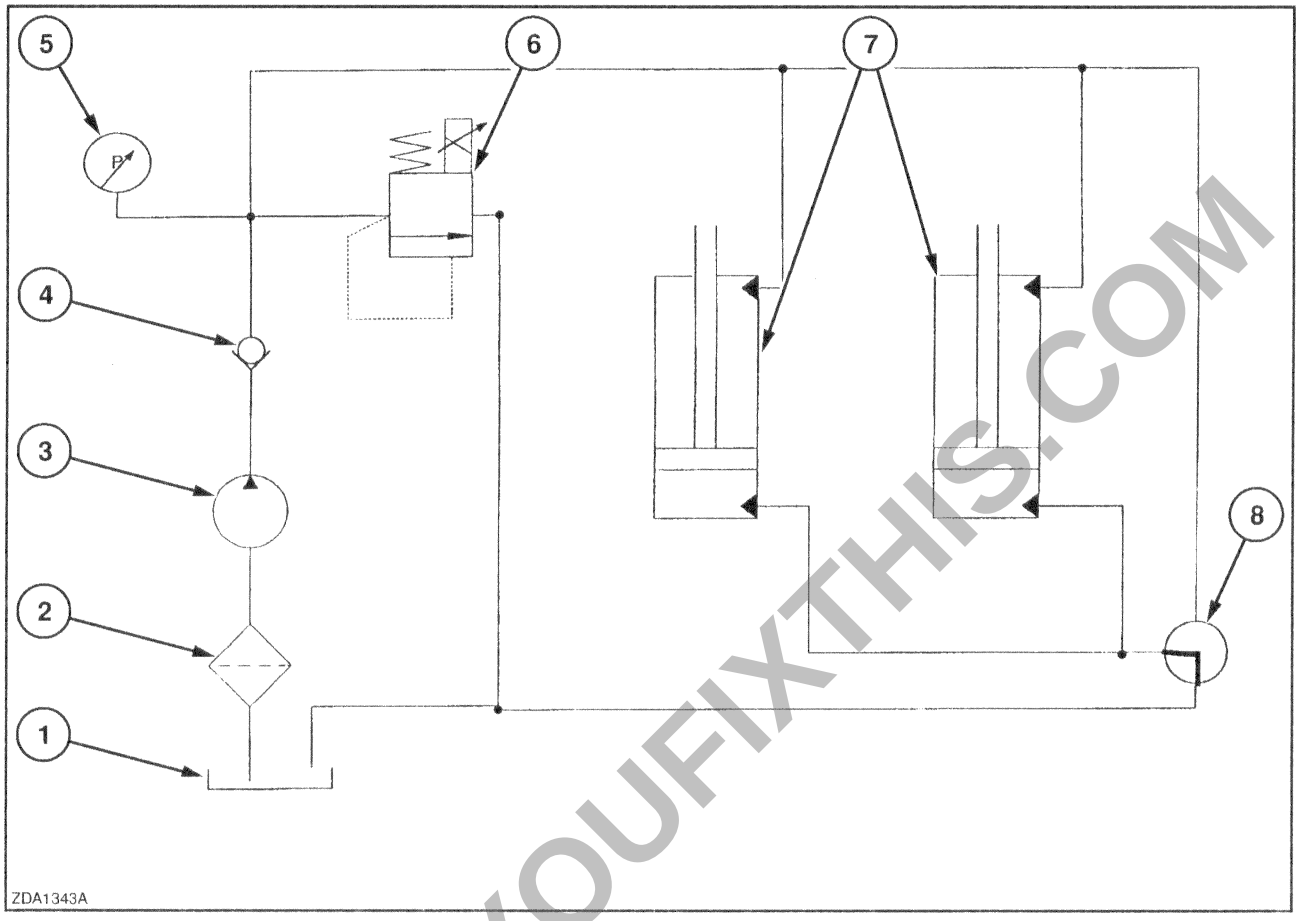
SAFETY-INFORMATION
BB940S 4125 > ..... BB940P 4161 > ..... BB940R 4125 > .....
BB960S 4129 > ..... BB960R 4152 > .....



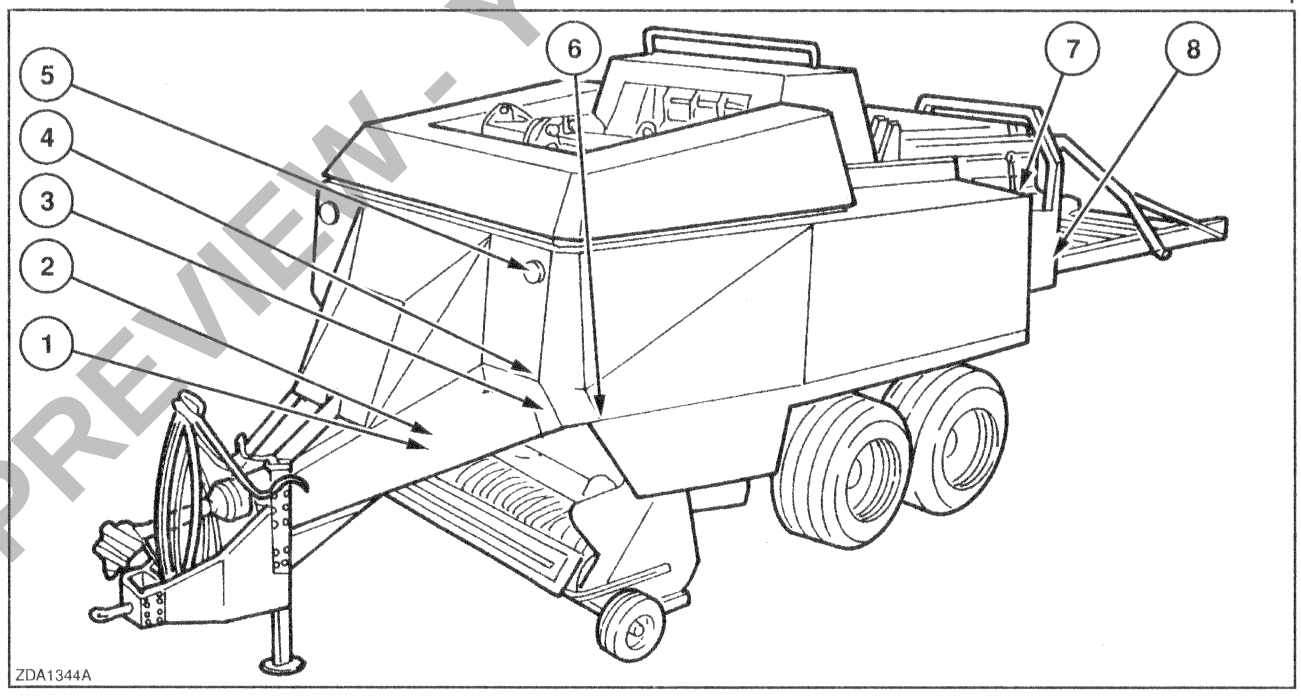
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COMPONENT SKETCH AND LOCATION



1



2

1. Oil tank
2. 25-micron filter
3. Hydraulic pump, 3.8 cc/rev.
4. Uni-directional valve
5. Pressure gauge
6. Proportional solenoid valve
7. Cylinders (2)
8. Manually-operated deflecting valve

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P.T.O. DRIVESHAFT

The BB940 baler is equipped with a BONDIOLI p.t.o. drive shaft. The BB960 baler is equipped with a WALERSCHEID p.t.o. drive shaft. Both p.t.o. drive shafts consist of an 80° CV-joint at the front of the shaft, a center support bearing and standard U-joints.

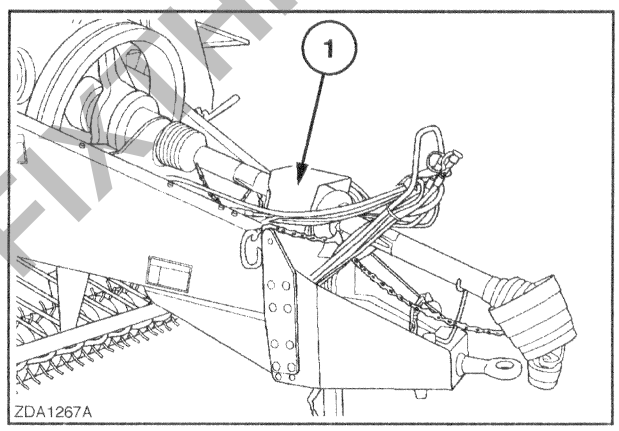
Depending on the hitch version, the type of p.t.o. drive shaft is a 3 joint p.t.o. drive line or a 4 joint p.t.o. drive line (refer to the BB940-960 Operator's Manual Section 2 paragraph headed "Attaching the baler to the tractor").

BONDIOLI P.T.O. DRIVESHAFT

Removal

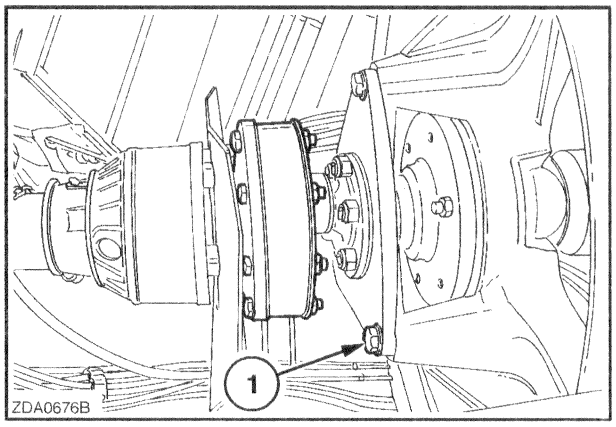
To remove the p.t.o. drive shaft, proceed as follows:

1. Remove shield 1 covering the center support bearing.
2. Remove the four bolts of the center support.



1

3. Remove three bolts 1.
4. Remove the protective anti-rotation chains attached to the baler.
5. Remove the p.t.o. driveshaft and torque limiter and place it on a workbench.



2

Installation

1. Install the p.t.o. driveshaft and torque limiter at the flywheel with tree bolts 1.
2. Install the center support with four bolts as described in the Operator's Manual section 2, paragraph headed "Attaching the baler to the tractor".
3. Install the protective anti-rotation chains.

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MINIMUM HARDWARE TIGHTENING TORQUES

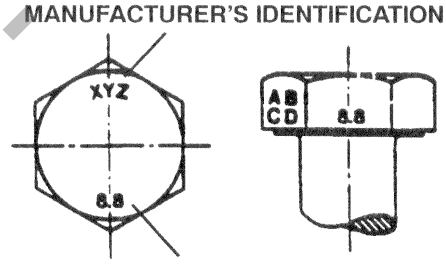
IN NEWTON-METRES - Nm (FOOT POUNDS - LBF. FT)
FOR NORMAL ASSEMBLY APPLICATIONS

METRIC HARDWARE AND LOCKNUTS

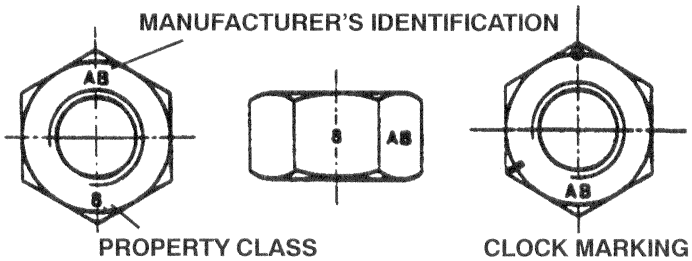
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)
M8	14 (124*)	18 (159*)	22 (195*)	28 (248*)	31 (274*)	40 (354*)	15 (133*)
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	30 (22)
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	53 (39)
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	131 (97)
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	265 (195)
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	458 (338)

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION
HEX CAP SCREW AND CARRIAGE BOLTS
CLASSES 5.6 AND UP



HEX NUTS AND LOCKNUTS
CLASSES 05 AND UP



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FAULT DIAGNOSIS

In this paragraph all errors that can appear on the InfoView™ monitor are handled.
Following list gives a summary of all arrors that can appear. They are discussed further in this paragraph.

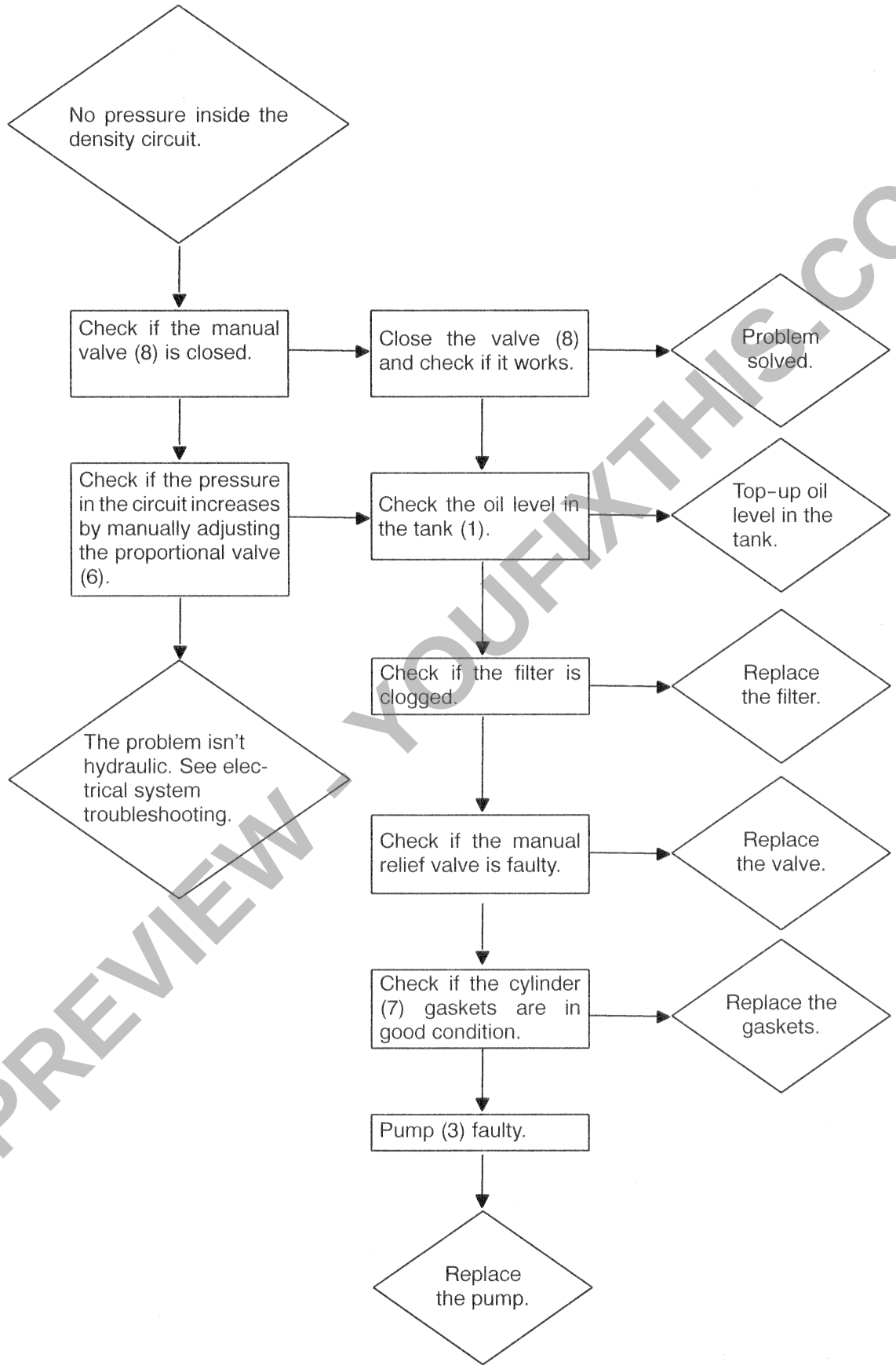
ERROR CODE OVERVIEW

ERROR CODE	DESCRIPTION	PAGE
171	Battery Voltage - Low	14
172	Battery Voltage - High	14
173	10V reference - Low	15
174	10V reference - High	16
175	8V reference - Low	17
176	8V reference - High	17
177	5V reference - Low	18
178	5V reference - High	19
200	Greasing switch	20
201	Greasing switch	20
216	Mistie sensor 2 - Line Open	24
217	Mistie sensor 2 - Line Shorted	25
218	Mistie sensor 2 - 12V	26
219	Mistie sensor 3 - Line Open	27
220	Mistie sensor 3 - Line Shorted	28
221	Mistie sensor 3 - 12V	29
222	Mistie sensor 4 - Line Open	30
223	Mistie sensor 4 - Line Shorted	31
224	Mistie sensor 4 - 12V	32
225	Mistie sensor 5 - Line Open	33
226	Mistie sensor 5 - Line Shorted	34
227	Mistie sensor 5 - 12V	35
228	Pick-up speed sensor - Line Open	36
229	Pick-up speed sensor - Line Shorted	37
230	Pick-up speed sensor - 12V	38
231	Feeder shearbolt sensor - Line Open	39
232	Feeder shearbolt sensor - Line Shorted	40
233	Feeder shearbolt sensor - 12V	41
237	Bale drop sensor - Line Open	42
238	Bale drop sensor - Line Shorted	43
239	Bale drop sensor - 12V	44

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DENSITY CIRCUIT TROUBLESHOOTING



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GENERAL FEATURES

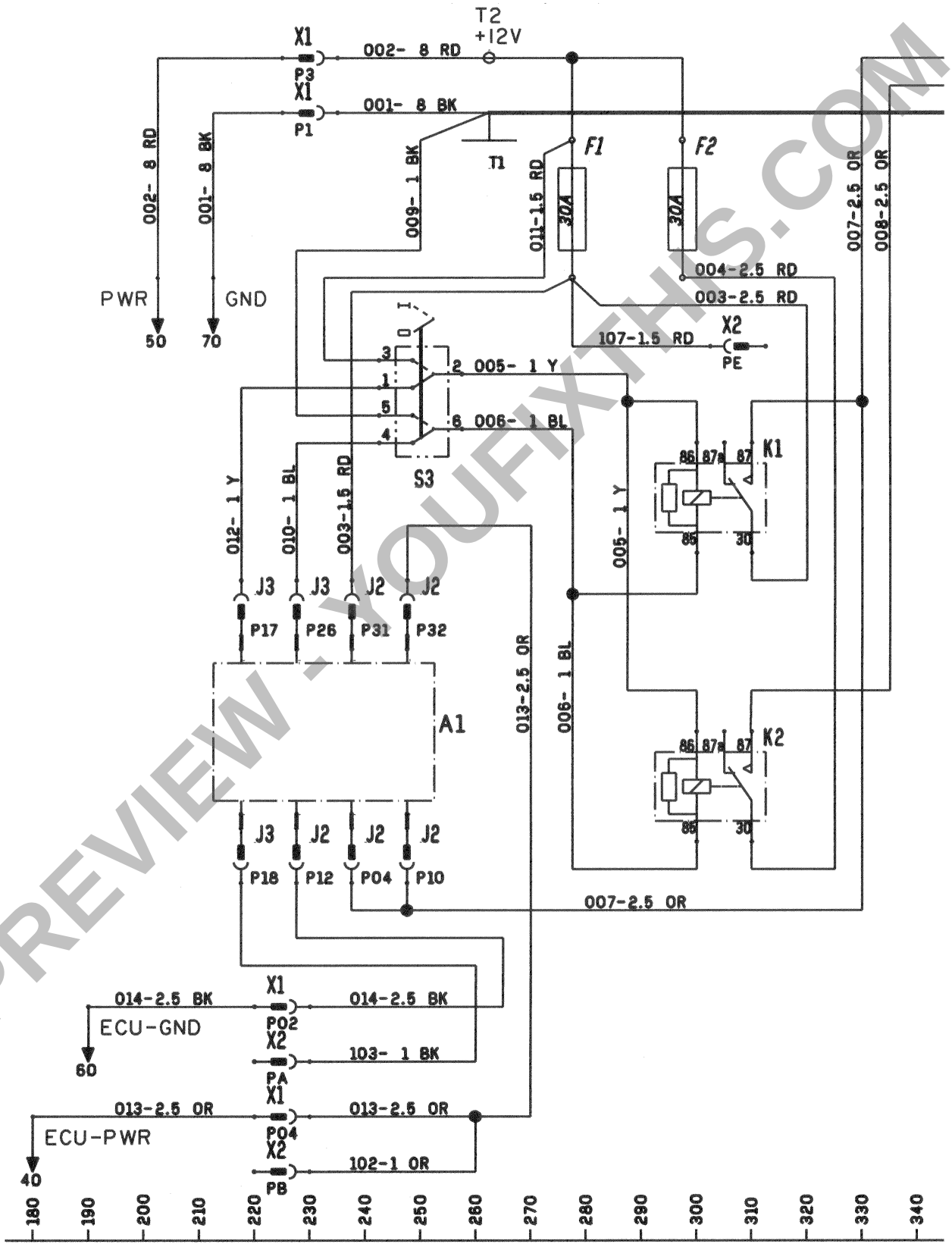
	BB940S	BB940PC	BB940RC	BB960S	BB960RC
PICK-UP					
Operating width	1982 mm (78 1/16")		2000 mm (78 3/4")	2246 mm (88 7/16")	2400 mm (94 1/2")
Width at external tines	1782 mm (70 3/16")		1800 mm (70 7/8")	2046 mm (80 9/16")	2200 mm (86 5/8")
Diameter (on guards)	267 mm (10 1/2")		329 mm (12 15/16")	267 mm (10 1/2")	329 mm (12 15/16")
Number ot tines	56 double (112)			64 double (128)	68 double (136)
Tine spacing	66 mm (2 5/8")				
Number of bars	4				
Drive	chain				
Protection	Slip and overrunning clutch (not adjustable) Pre-set at 1000 Nm (737 ft.lbs)		Slip and overrun-ning clutch (not adjustable) Pre-set at 1450 Nm (1069 ft.lbs)	Slip and overrun-ning clutch (not adjustable) Pre-set at 1000 Nm (737 ft.lbs)	Slip and overrun-ning clutch (not adjustable) Pre-set at 1450 Nm (1069 ft.lbs)
Gauge wheels	15 x 6.00-6-4PR				
Pick-up lift (standard)	Hydraulic				
Pick-up flotation	Adjustable spring				
Pick-up reel speed	141 rpm	140 rpm	106 rpm	141 rpm	106 rpm
Reel drive	Chain				
Centering auger diameter	330 mm (13")		260 mm (10 1/4")	330 mm (13")	260 mm (10 1/4")
Centering auger direction	undershot		overshot	undershot	overshot
Centering auger speed	233 rpm	231 rpm	244 rpm	233 rpm	244 rpm
FEEDER					
Packer / Rotor	Packer : 2 forks, 4 single tines	Packer : 3 forks, 6 double tines	Rotor : width 972 mm (38 1/4")	Packer : 3 forks, 6 single tines	Rotor : width 1356 mm (53 3/8")
Drive	Chain NO. 80	Chain NO. 100	Chain NO. 120	Chain NO. 80	Chain NO. 120
Packer / Rotor rotation speed	168 rpm	166 rpm	86 rpm	168 rpm	86 rpm
Protection	Slip clutch pre-set at 2100 Nm (1549 ft.lbs) (not adjustable)	Slip clutch pre-set at 4000 Nm (2950 ft.lbs) (not adjustable)	Cut-out clutch pre-set at 6500 Nm (4795 ft.lbs) (not adjustable)	Slip clutch pre-set at 2100 Nm (1549 ft.lbs) (not adjustable)	Cut-out clutch pre-set at 6500 Nm (4795 ft.lbs) (not adjustable)

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POWER BALER

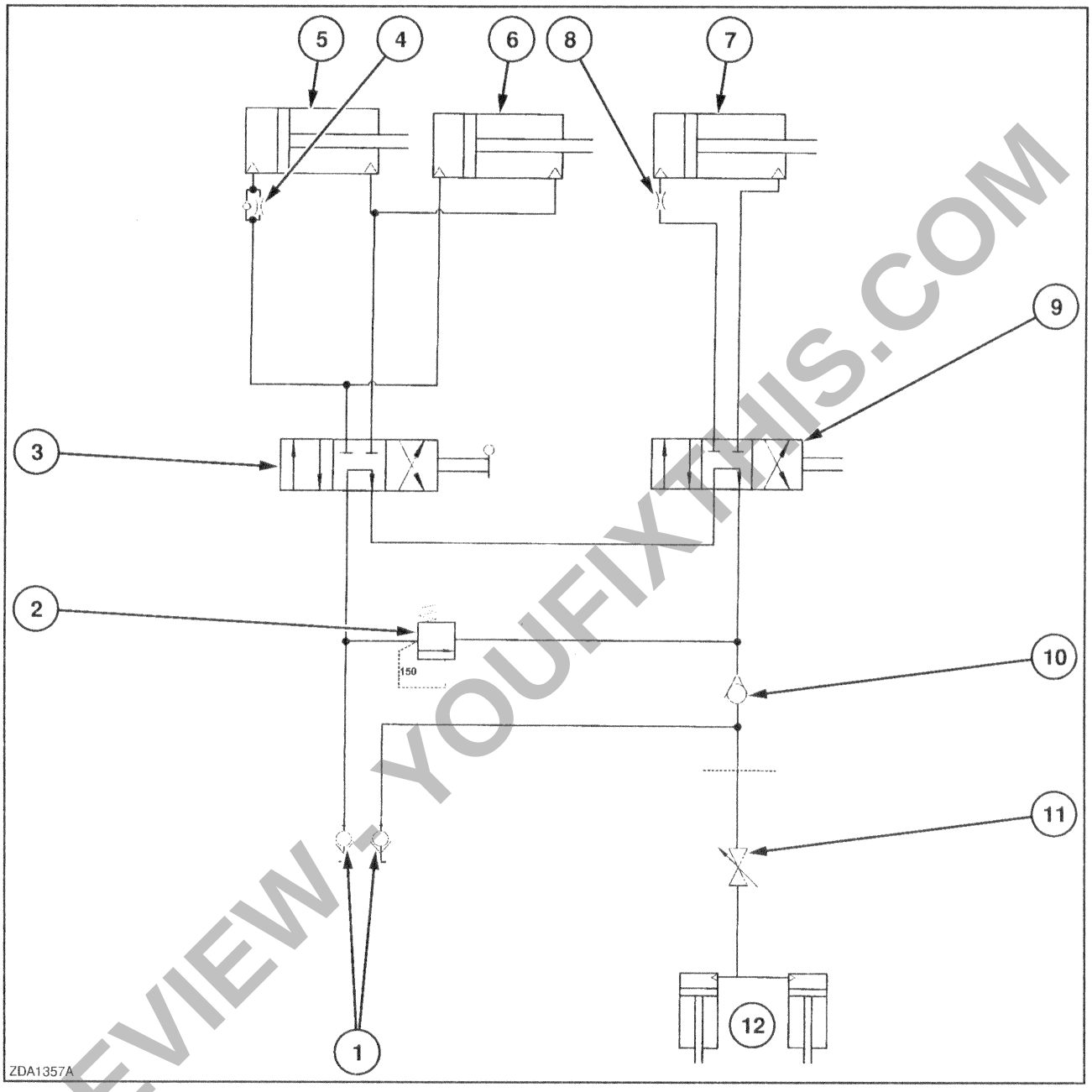
BB940S	4125	>	.....	BB940P	4161	>	.....	BB940R	4125	>	.....
BB960S	4129	>	.....	BB960R	4152	>	.....				



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SKETCH - BALE EJECTOR / CHUTE POSITIONING / REAR WHEEL LOCKING



1

1. Quick-fit couplers
2. Relief valve, 150 bar (2175 psi)
3. Ejector control valve element
4. Uni-directional flow rate reducer, Ø 2 mm
5. Ejector control cylinder
6. Bale coupling tine control cylinder
7. Bale chute positioning control cylinder
8. Flow rate reducer, Ø 0.5 mm
9. Bale chute positioning control valve element
10. Uni-directional valve
11. Manually-operated lock valve
12. Rear wheel locking control cylinders (Tandem)

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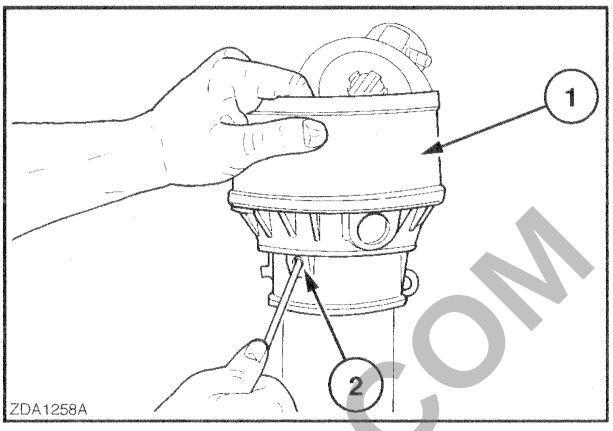
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PROTECTIVE ROTATION SHIELD

Disassembly

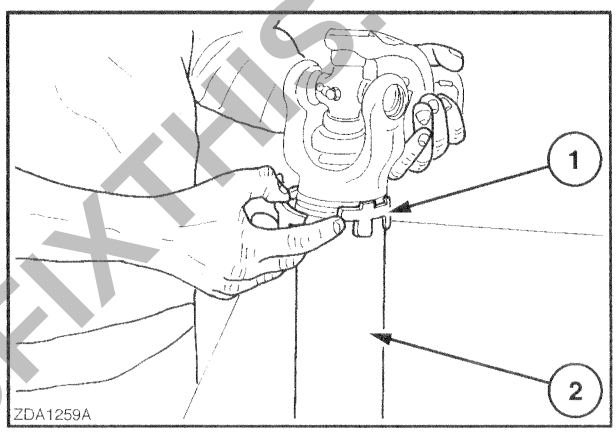
To remove the protective shields, proceed as follows:

1. Push down on cone 1 and press in tabs 2 with a screwdriver. Maintain pressure until all three tabs are released.



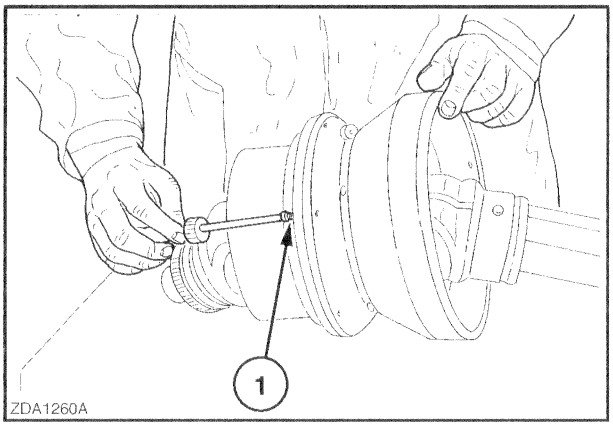
3

2. Slide down the cone until nylon bearing 1 is free.
3. Open nylon bearing 2 to remove the shield tube.



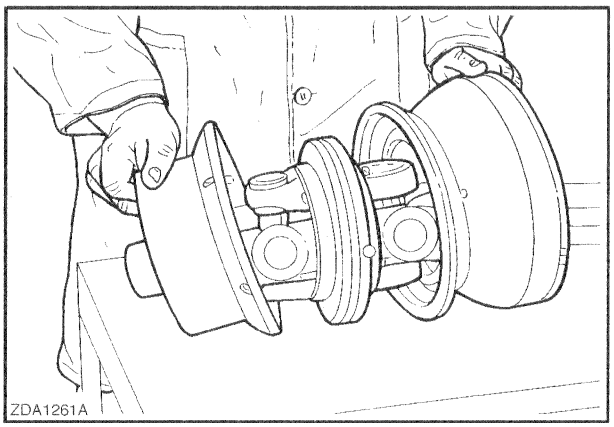
4

4. To remove the CV-joint shielding, remove screws 1 holding the two halves of the shield together.



5

5. Separate the shield and remove it from the joint.
6. Check and replace any worn or damaged parts.



6

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IN NEWTON-METRES - Nm (FOOT POUNDS - LBF. FT)
FOR NORMAL ASSEMBLY APPLICATIONS

INCH HARDWARE AND LOCKNUTS

NOMINAL SIZE	SAE GRADE 2		SAE GRADE 5		SAE GRADE 8		LOCKNUTS		NOMINAL SIZE
	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	GR.B w/GR5 BOLT	GR.C w/GR8 BOLT	
1/4	6.2 (55*)	8.1 (72*)	9.7 (86*)	13 (112*)	14 (121*)	18 (157*)	6.9 (61*)	9.8 (86*)	1/4
5/16	13 (115*)	17 (149*)	20 (178*)	26 (229*)	28 (250*)	37 (324*)	14 (125*)	20 (176*)	5/16
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	26 (19)	35 (26)	3/8
7/16	37(27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	41 (30)	57 (42)	7/16
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	61 (45)	88 (64)	1/2
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	88 (65)	125 (92)	9/16
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	122 (90)	172 (127)	5/8
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	217 (160)	306 (226)	3/4
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	350 (258)	494 (364)	7/8
1	289 ((213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	523 (386)	739 (545)	1

NOTE: Torque values shown with * are inch pounds.

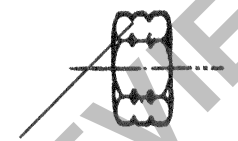
IDENTIFICATION
CAP SCREWS AND CARRIAGE BOLTS



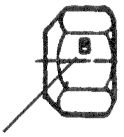
SAE GRADE 2 SAE GRADE 5 SAE GRADE 8

REGULAR NUTS SAE GRADE 5 HEX NUTS SAE GRADE 8 HEX NUTS

LOCKNUTS

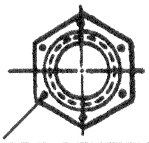


GRADE IDENTIFICATION
GRADE A NO NOTCHES
GRADE B ONE CIRCUMFERENTIAL NOTCH
GRADE C TWO CIRCUMFERENTIAL NOTCHES



GRADE IDENTIFICATION

GRADE A NO MARK
GRADE B LETTER B
GRADE C LETTER C



GRADE IDENTIFICATION
GRADE A NO MARKS
GRADE B THREE MARKS
GRADE C SIX MARKS
MARKS NEED NOT BE LOCATED AT CORNERS

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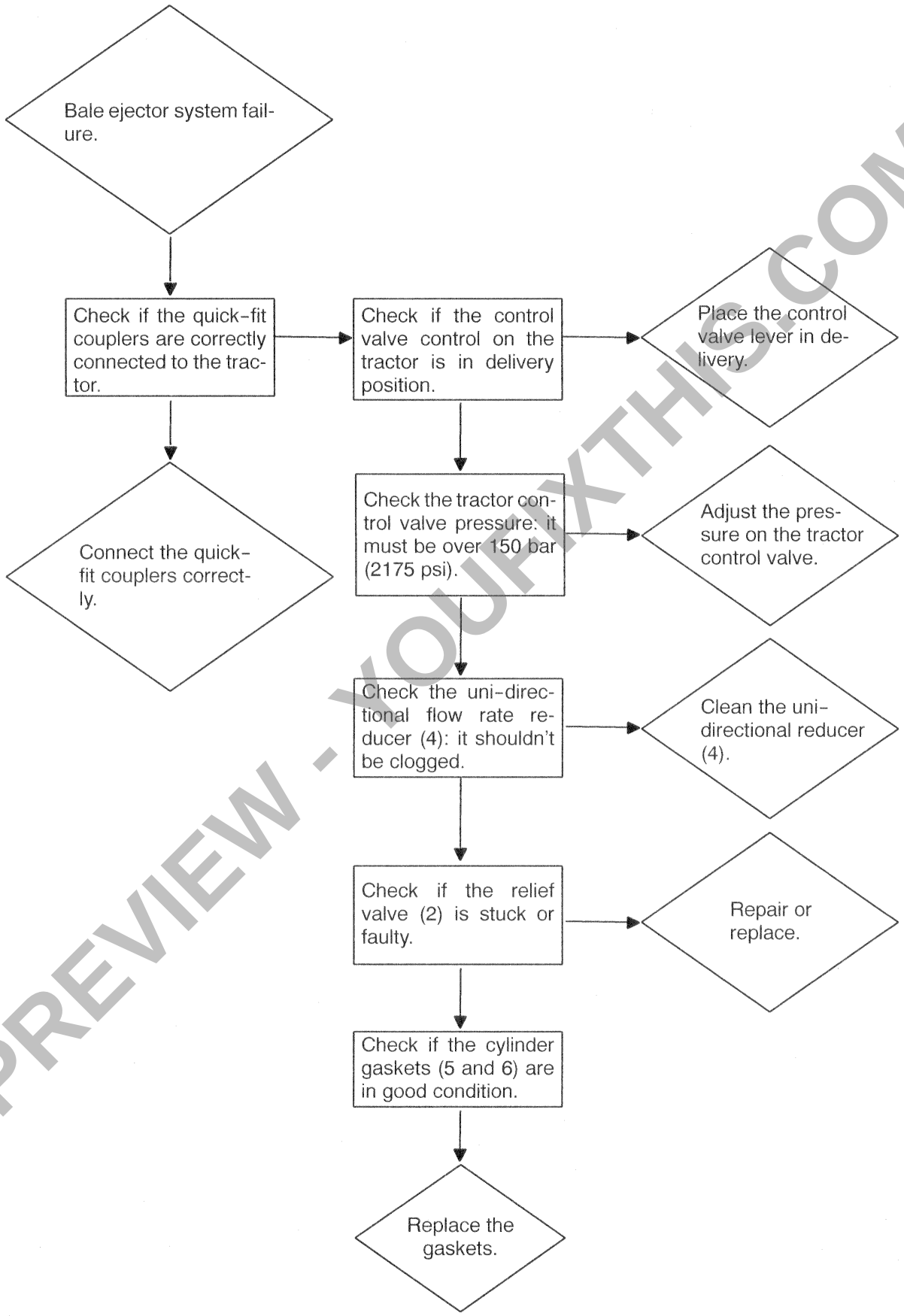
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ERROR CODE	DESCRIPTION	PAGE
240	Mistie sensor 1 - Line Open	45
241	Mistie sensor 1 - Line Shorted	46
242	Mistie sensor 1 - 12V	47
243	Gearbox speed sensor - Line Open	48
244	Gearbox speed sensor - Line Shorted	49
245	Gearbox speed sensor - 12V	50
246	Feeder Trip sensor - Line Open	51
247	Feeder Trip sensor - Line Shorted	52
248	Feeder Trip sensor - 12V	53
249	Needle Carriage sensor - Line Open	54
250	Needle Carriage sensor - Line Shorted	55
251	Needle Carriage sensor - 12V	56
258	Flywheel brake sensor - Line Open	57
259	Flywheel brake sensor - Line Shorted	58
260	Flywheel brake sensor - 12V	59
261	Cutter status sensor - Line Open	60
262	Cutter status sensor - Line Shorted	61
263	Cutter status sensor - 12V	62
264	Knotter shield sensor - Line Open	63
265	Knotter shield sensor - Line Shorted	64
266	Knotter shield sensor - 12V	65
284	Oil pressure sensor - Low	66
285	Oil pressure sensor - High	67
290	Load sensor - Low	68
291	Load sensor - High	69
305	Supply control - Defect	70
307	Knotter cleaning fans	70
308	Flashing lights	72
309	Accessory 2	74
312	Operating Lights	76
313	Accessory 1	77
400	Oil pump Current - Low	78
401	Oil pump Current - High	82
402	Density Current - Low	84
403	Density Current - High	88
410	X3 - Disconnected	90
411	X4 - Disconnected	90

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BALE EJECTOR TROUBLESHOOTING



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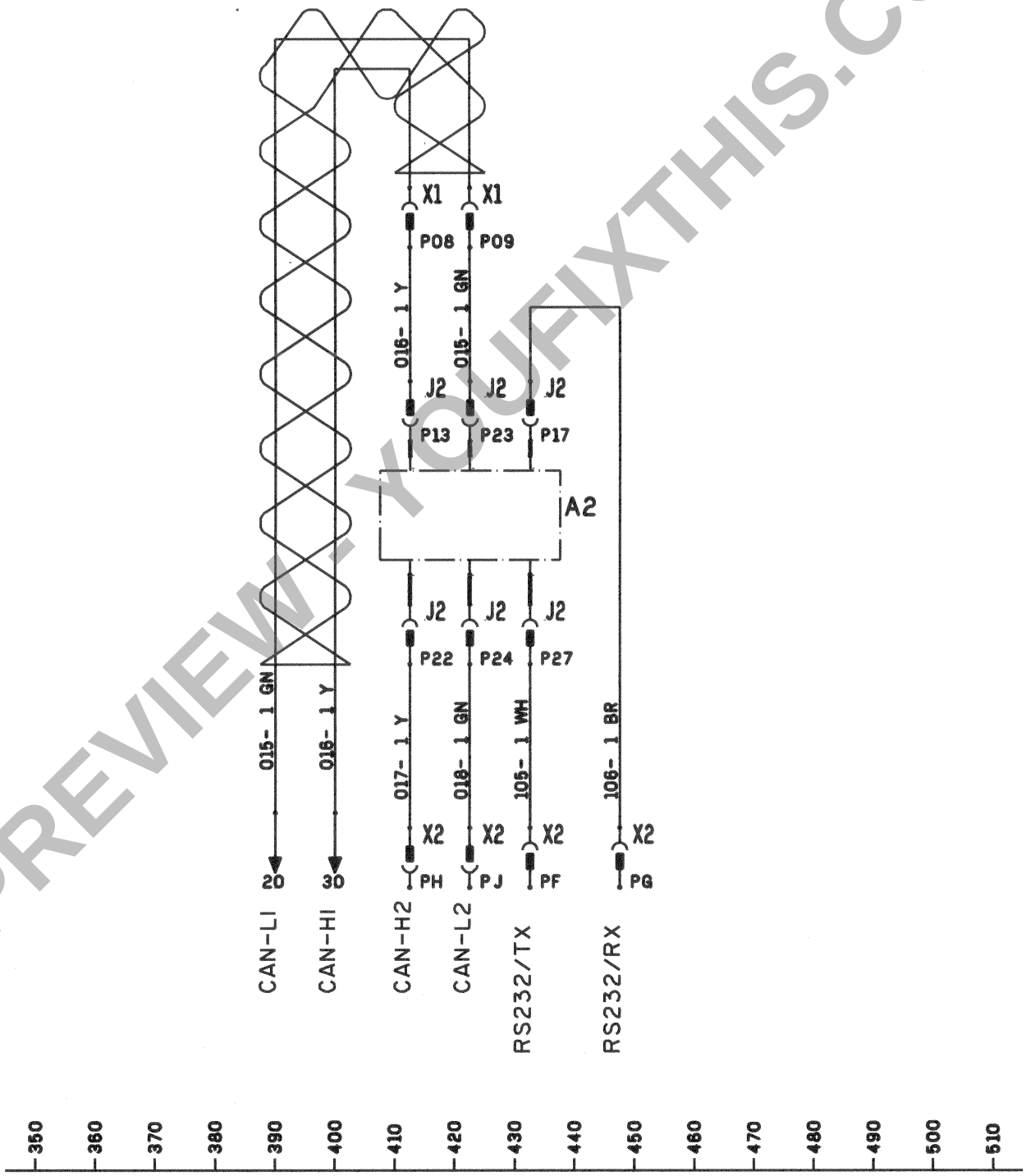
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	BB940S	BB940PC	BB940RC	BB960S	BB960RC
PRE-COMPRESSION					
Charge chamber	Volume: 0.25 m^3 (8,83 $feet^3$)	Volume: 0.25 m^3 (8,83 $feet^3$) + Antifriction floor	Volume: 0.25 m^3 (8,83 $feet^3$) + Antifriction floor	Volume: 0.3 m^3 (10,6 $feet^3$)	Volume: 0.3 m3 (10,6 $feet^3$) + Antifriction floor
Windrow size compensation	Automatic charge sensor engaged stuffer clutch Stuffer trip sensitivity lever				
Stuffer	Fork-type with 4 tines	Fork-type with 6 tines	Fork-type with 4 tines	Fork-type with 6 tines	
Drive	Oil bath gearbox				
Speed	Up to 42 cycles per minute				
Stuffer protection	Shearbolt M10 x 60 (10.9)				
Width	800 mm (31 1/2")			1184 mm (46 5/8")	
BALE CHAMBER AND PLUNGER					
Plunger speed	42 strokes/min				
Length of stroke	710 mm (27 15/16")				
Mounting	4 vertical roller bearings 2 horizontal roller bearings				
Drive	Crank and connecting rod				
Bale chamber dimensions: - Width x Height - Length	800 mm x 870 mm (31 1/2" x 34 1/4") 2540 mm (100")			1184 mm x 870 mm (46 5/8" x 34 1/4") 2540 mm (100")	
Bale density	Electro-hydraulical or hydraulical				
Density adjustment	From tractor seat - InfoView™ monitor or manual density valve adjustment				
Bale pressing	Two pivotable side panels + pivotable top panel.				
Bale size: - Width - Height - Length maximum - Length minimum	800 mm (31 1/2") 900 mm (35 7/16") 2500 mm maximum (98 7/16") 1200 mm minimum (47 1/4")			1200 mm (47 1/4") 900 mm (35 7/16") 2500 mm maximum (98 7/16") 1200 mm minimum (47 1/4")	

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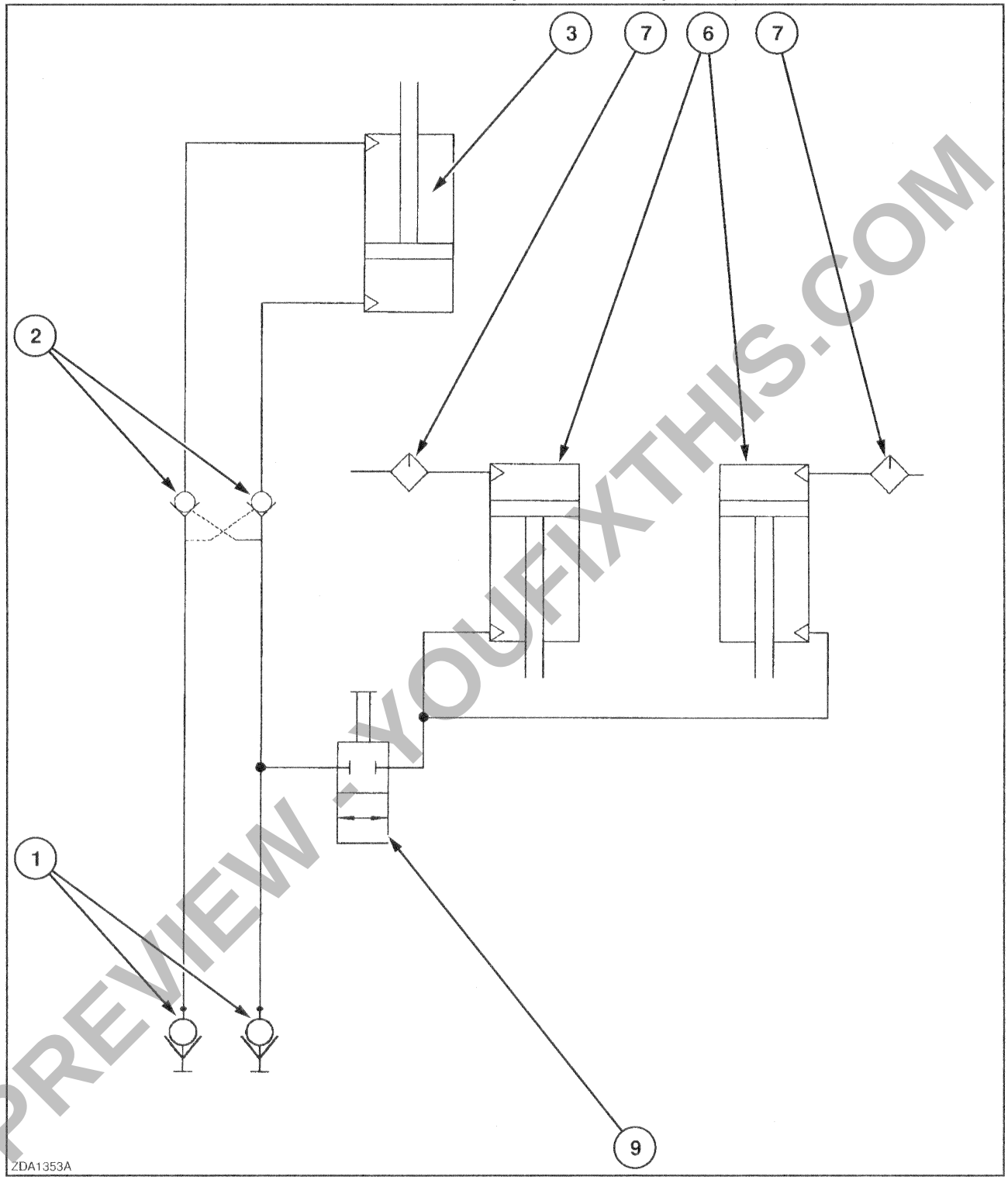
```
CAN & RS232 CONNECTION
BB940S  4125   >  ..... BB940P  4161   >  ..... BB940R  4125   >  .....
BB960S  4129   >  ..... BB960R  4152   >  .....
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SKETCH - BLADE CONTROL CIRCUIT (WITH ROTOR) - MODELS BB 940-960



11

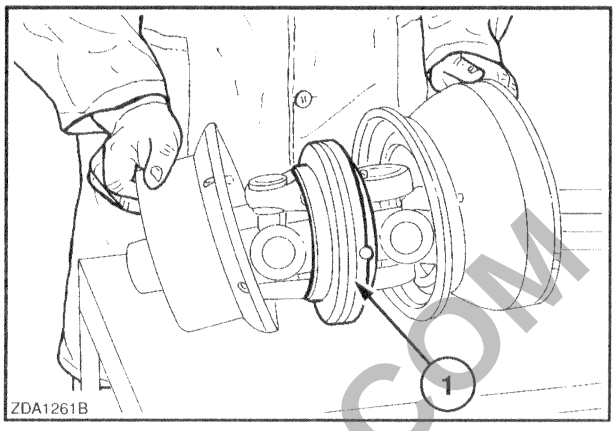
1. Quick-fit couplers
2. Lock valve
3. Blade engagement cylinder
6. Blade-holding assembly lowering cylinders
7. Bleeds
9. Manually-operated deflecting valve

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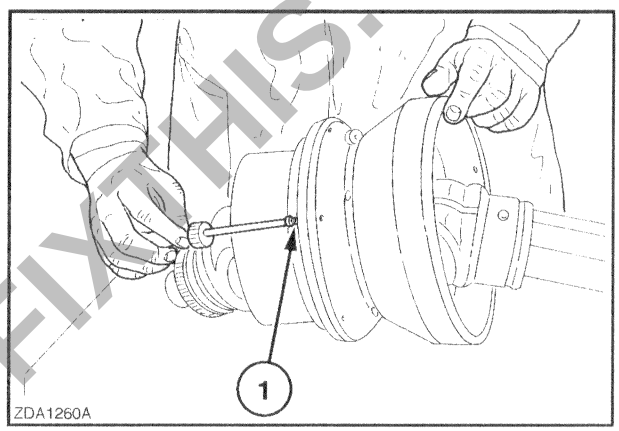
Assembly

1. Lubricate bearing surface 1 on the central body of the CV-joint.



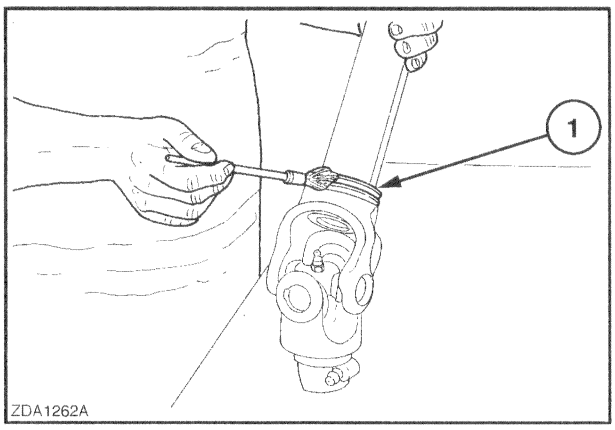
7

2. Align the two halves of the shield and secure with screws 1.



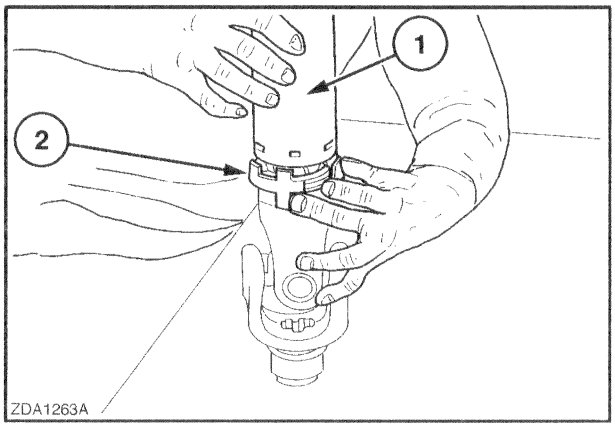
8

3. Grease shield bearing groove 1 on inner yokes.



9

4. Slide on shield tube 1 and fit bearing tabs 2 into the slots.



10

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	BB940S	BB940PC	BB940RC	BB960S	BB960RC
TYING MECHANISM					
Knotters - quantity - type	four double knot type			five double knot type	
Twine spacing	172 mm (6 3/4")			225 mm (8 7/8")	
Knotters/needle drive	Oil bath gearbox and p.t.o. shaft				
Protection	Mechanical linkage, timed with the plunger Shearbolt M8 x 60 (8.8)				
Knotter perform-ance indicators	InfoView™ monitor indication (audio-visual) and Monitoring flags				
Twine storage	2 boxes				
Twine capacity - Top twine - Bottom twine1	24 + 2 = 26 balls 3 balls per knotter 3 balls per needle			25 + 1 = 26 balls 2 balls per knotter 3 balls per needle	
Twine type - Heavy-duty plastic - Knot strength (heavy-duty plastic) - Heavy-duty sisal	130 m/kg 1560 N minimum (350 lbf. minimum) 70 m/kg			120 m/kg 1779 N minimum (400 lbf. minimum) 70 m/kg	
MAIN DRIVE					
P.t.o. speed	1000 rpm only				
Protection	Shearbolt M10 x 70 (8.8) Overrunning clutch and slip clutch Set at 1200 Nm (885 ft.lbs) (not adjustable)			Shearbolt M10 x 60 (10.9) Overrunning clutch and slip clutch Set at 1500 Nm (1106 ft.lbs) (not adjustable)	Shearbolt M10 x 60 (10.9) Overrunning clutch and slip clutch Set at 1650 Nm (1217 ft.lbs) (not adjustable)
Flywheel - Diameter - Weight - Mounting	720 mm 28 6/16") 220 kg (485 pounds) conical bearing set			800 mm (31 1/2") 250 kg (551 pounds) conical bearing set	

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CONTENTS

GENERAL INFORMATION

Introduction 2
Important information 2
General instructions 3
Spare parts 4
Safety regulations 5
Explanation of machine serial numbers 8
Units of measure - conversion chart 9
Minimum hardware tightening torques 10
General features 12
Lubrication schedule 19

31 - IMPLEMENT POWER TAKE-OFF

Chapter 1 - P.t.o. drive shaft

P.t.o. drive shaft 2
Bondioli p.t.o. drive shaft 2
Walterscheid p.t.o. driveshaft 6
CV U-joint 12
Standard U-Joint 14
Center support bearing replacement 16
Flywheel slip clutch 18

Chapter 2 - Flywheel

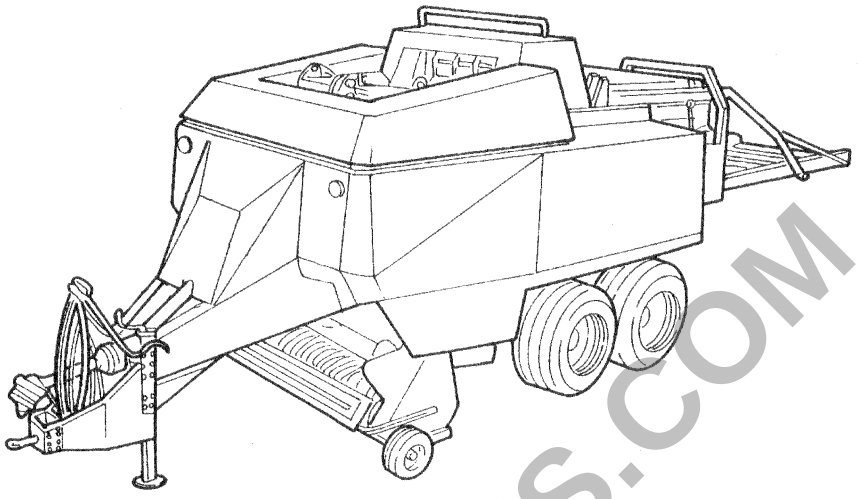
Flywheel brake adjustment 2
Flywheel - Removal - Installation 2

Chapter 3 - Main gearbox

Description and operation 2
Gearbox shafts 2
Specifications 4
Tightening torques 4

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NEW HOLLAND



BB940S - BB940P - BB940R - BB960S - BB960R
BIG BALERS

REPAIR MANUAL

SECTIONS

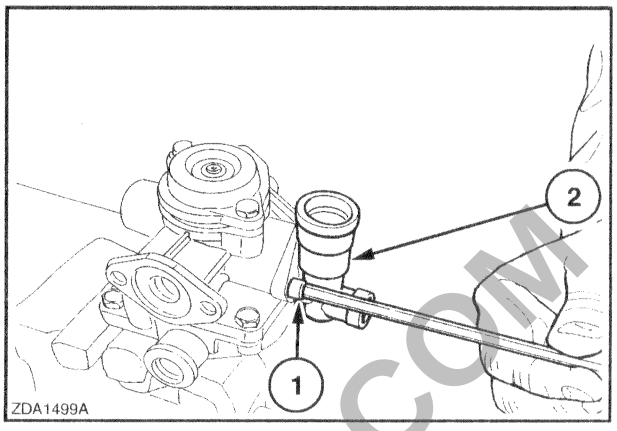
GENERAL INFORMATION
MACHINE COMPLETION 05
IMPLEMENT POWER TAKE-OFF 31
BRAKES AND CONTROLS 33
HYDRAULIC SYSTEMS 35
FRAMES 39
AXLES AND WHEELS 44
ELECTRICAL SYSTEM 55
PRODUCT FEEDING 60
PRESSING 62
TYING 68
EJECTION 70
ACCESSORIES 88
PLATFORM, CAB, BODYWORK AND DECALS 90

S E R V I C E

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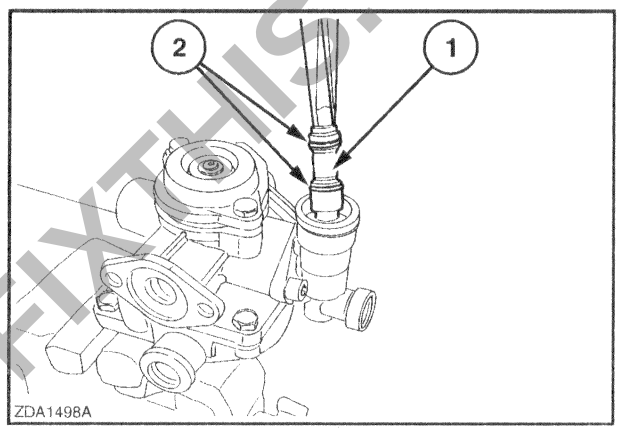
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43. Install housing 2.



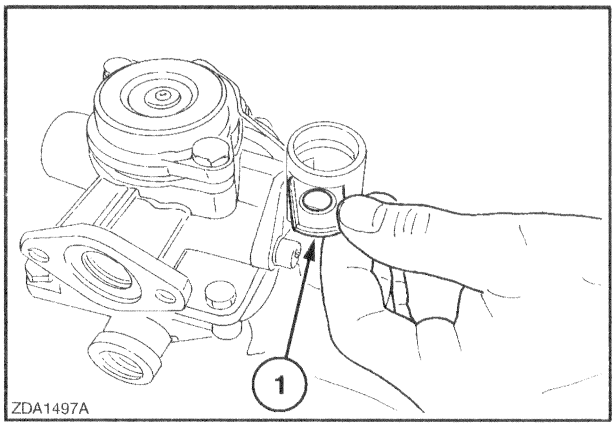
48

44. Install cilinder 1.



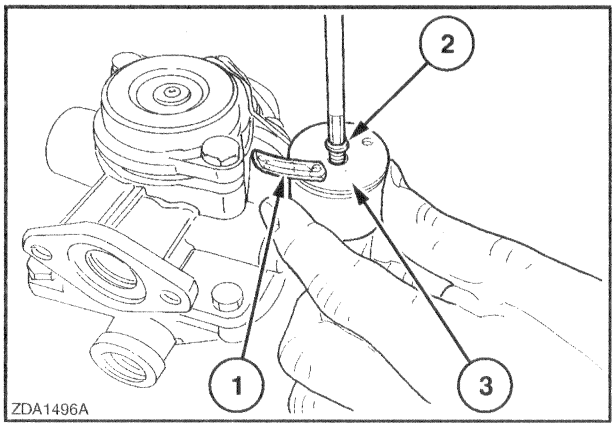
49

45. Install plate 1.



50

46. Install button 3, tighten screw 2 and install plate 1.
47. Secure plate 1 on button 3 with a soldering-bolt.



51

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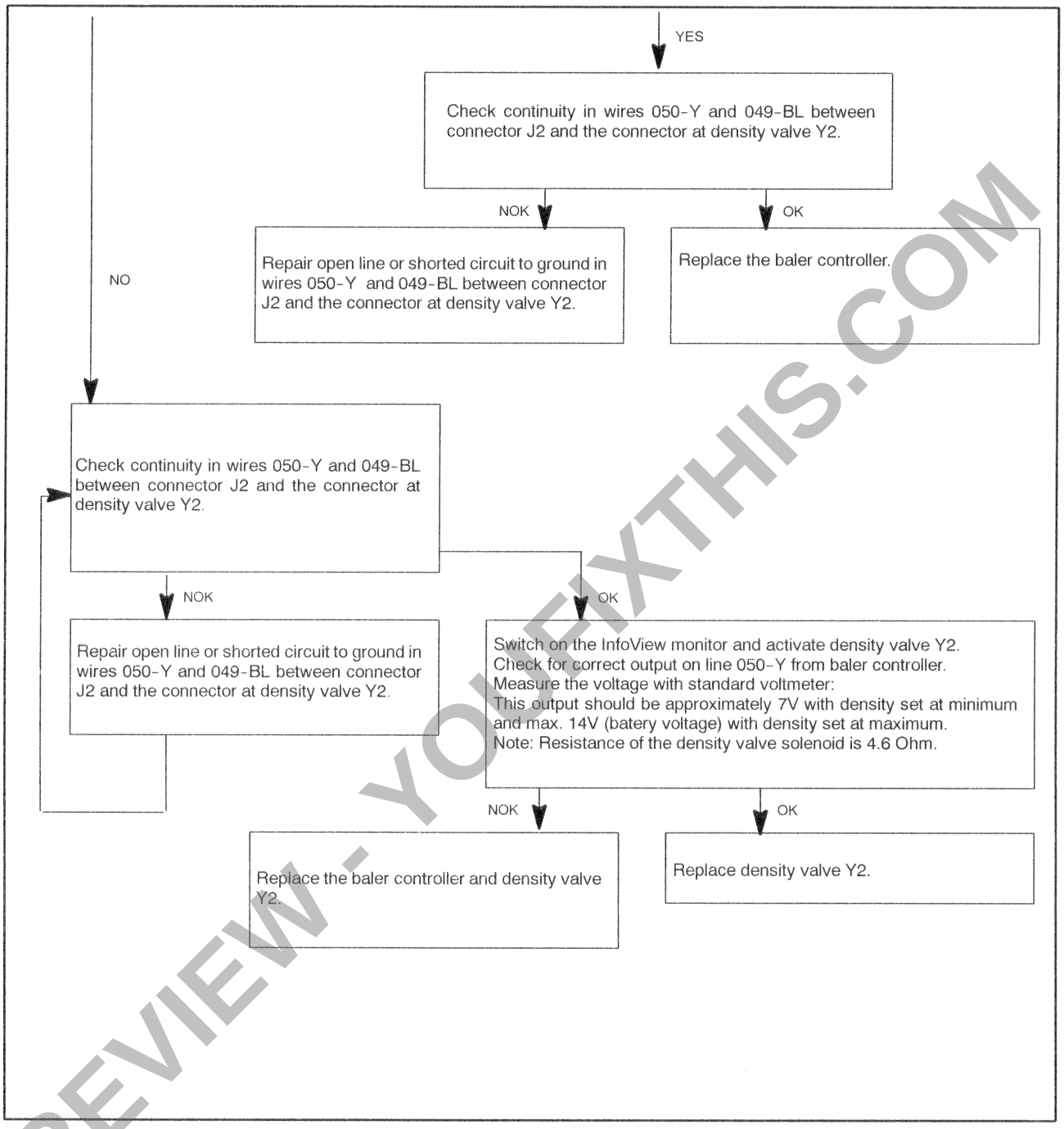
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4 **SAFETY-INFORMATION**
BB940S 4125 > ..... BB940P 4161 > ..... BB940R 4125 > .....
BB960S 4129 > ..... BB960R 4152 > .....

Code	Description	Line
A3.	Safety-information (controller)	530
B1.	Flywheel brake	650
B7.	Ref speed	590
B8.	Pick up speed	650
B9.	Stufffer shearbolt	600
B12.	Needle carriage	600
B13.	Feeder channel	650

Line: 520 - 680

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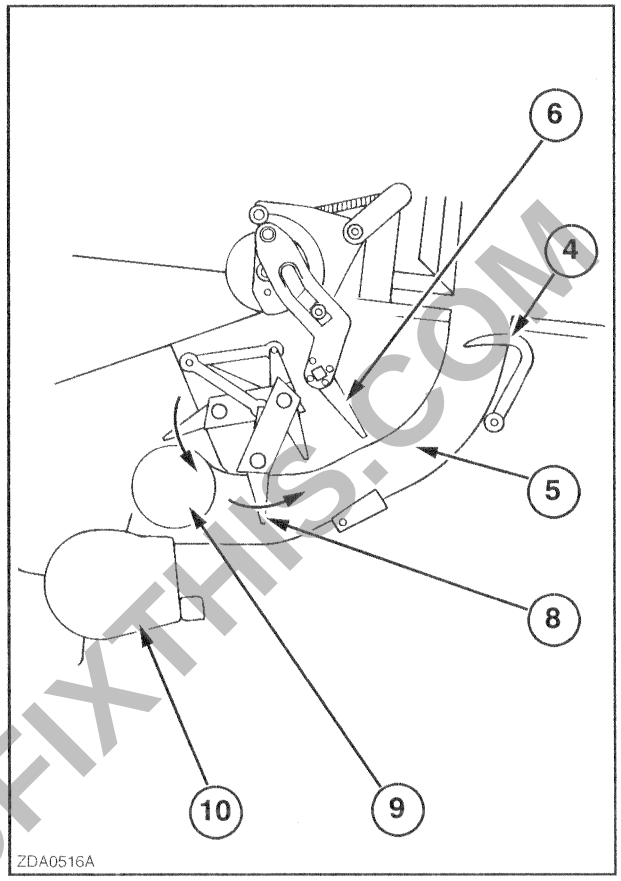


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The crop is continuously picked-up and fed into the baler by four-bat pick-up assembly, 10. Baffle plate, 111, guides the material into the baler. Two centering augers, 9, move material from the ends of the pick-up into packer, 8.

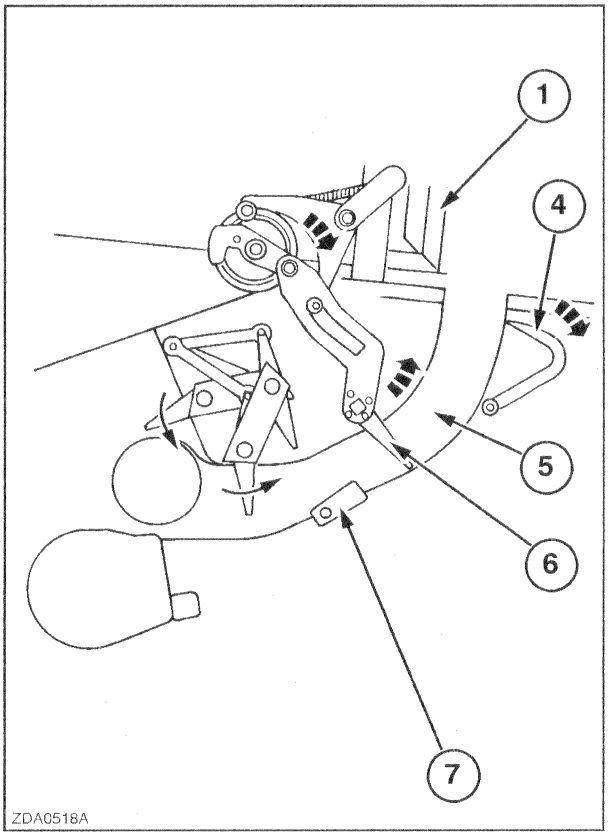
The crop is continuously moved from the pick-up into pre-compression chamber, 5, by means of double-tine packer fingers. Crop holding fingers, 4, retains the material in the pre-compression chamber. At this stage stuffer fork, 6, is at rest (at the low end of the pre-compression chamber).



2

When sufficient crop has been fed into pre-compression chamber, 5, sensing mechanism, 7, automatically activates the stuffer mechanism, 6. Holding fingers, 4, will retract automatically to clear the pre-compression chamber top opening and at the same time stuffer fork, 6, sweeps the calibrated charge of crop into the bale chamber on the compression return stroke of plunger, 1.

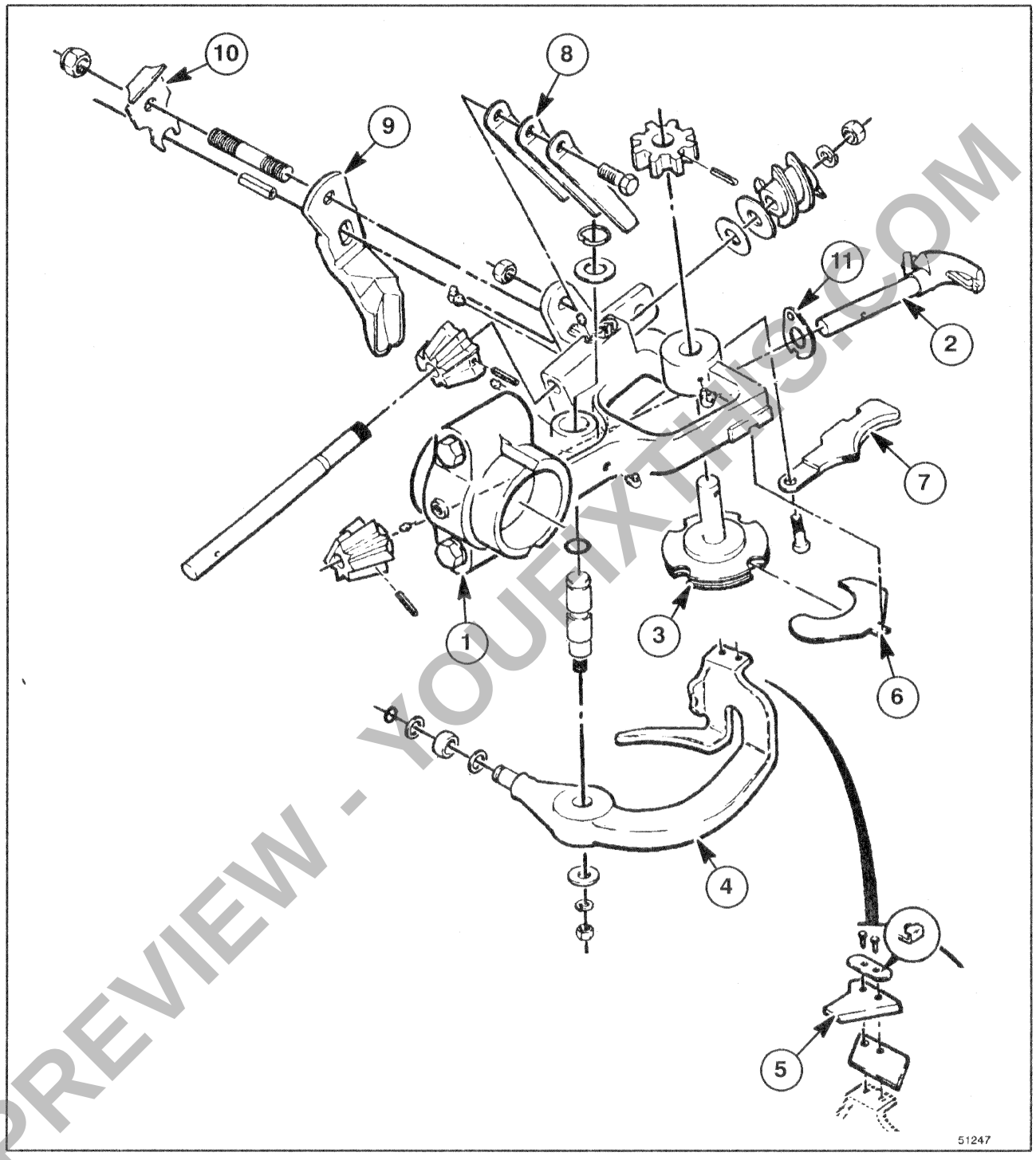
The movement of the stuffer is synchronised with the movement of the plunger.



3

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KNOTTER PARTS



17

1. Knotter frame
2. Billhook
3. Twine disc
4. Knife stripper
5. Twine knife
6. Twine disc cleaner
7. Twine holder
8. Twine holder spring
9. Billhook cam
10. Billhook cam tension spring
11. Billhook pinion gear shim

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