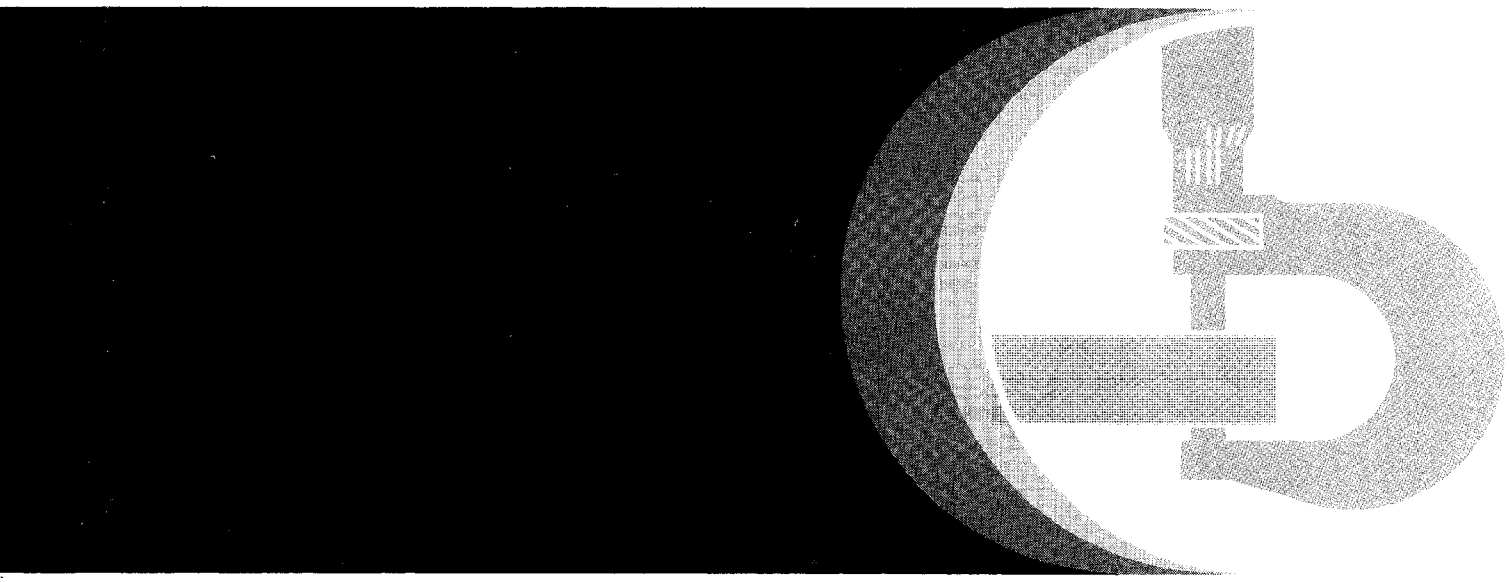
Combines

932, 942, 952, 955, 965-H, 968-H, 975, 975 Hydro/4, 985, 985 Hydro/4, 1065, 1068-H, 1072, 1075, 1075 Hydro/4, 1085, 1085 Hydro/4



John Deere Werke Zweibrücken
TM-4387
Printed in Germany (English) Rev.

Combines 932, 942, 952, 955, 965, 965-H, 968-H, 975 975 Hydro/4, 985, 985 Hydro/4, 1065, 1068-H, 1072, 1075, 1075 Hydro/4, 1085 and 1085 Hydro/4

Technical Manual TM-4387 (1989)

CONTENTS

* 985 combines up to serial no. 18432
** 985 combines from serial no. 18433

GENERAL

Directions, such as right-hand, left-hand, front or rear, always stand in relation to the direction of combine travel.

All information, illustrations and specifications in this technical manual are based on the latest status at time of publication and can be changed at any time without prior notice.

Section 10
General

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Removal and installation of engine																			
General information	10-25-4			x	x														
Removal	10-25-4			x	x														
Installation	10-25-6			x	x														
Removal and installation of engine*																			
General information	10-25-7					x	x	x	x	x	x	x	x	x	x	x	x		
Removal	10-25-7					x	x	x	x	x	x	x	x	x	x	x	x		
Installation	10-25-12					x	x	x	x	x	x	x	x	x	x	x	x		
Removal and installation of engine**																			
General information	10-25-13										x	x						x	x
Removal	10-25-13										x	x						x	x
Installation	10-25-17										x	x						x	x
Removal and installation of front axle																			
Removal	10-25-18	x	x	x															
Installation	10-25-21	x	x	x															
Removal and installation of front axle																			
Removal	10-25-21				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-23				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Removal and installation of transmission																			
Removal	10-25-23	x	x	x															
Installation	10-25-23	x	x	x															
Removal and installation of transmission																			
Removal	10-25-24				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-26				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Removal and installation of final drives																			
Removal	10-25-26				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-26				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Removal and installation of rear axle																			
Removal	10-25-27	x	x	x	x														
Installation	10-25-27	x	x	x	x														
Removal and installation of rear axle																			
Removal	10-25-27					x	x	x	x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-29					x	x	x	x	x	x	x	x	x	x	x	x	x	x

* 985 up to serial no. 18432
** 985 from serial no. 18433

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Removal and installation of three spool control valve																			
Removal	10-25-29	x	x	x	x														
Installation	10-25-30	x	x	x	x														
Removal and installation of single spool control valve																			
Removal	10-25-30			x	x														
Installation	10-25-31			x	x														
Removal and installation of seven spool control valve																			
Removal	10-25-31					x	x	x	x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-32					x	x	x	x	x	x	x	x	x	x	x	x	x	x
Removal and installation of bowden cables for seven spool control valve																			
Removal	10-25-32					x	x	x	x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-34					x	x	x	x	x	x	x	x	x	x	x	x	x	x
Removal and installation of hydraulic pump																			
Removal	10-25-34	x																	
Installation	10-25-35	x																	
Removal and installation of hydraulic pump																			
Removal	10-25-35		x	x	x														
Installation	10-25-37		x	x	x														
Removal and installation of tandem hydraulic pump																			
Removal	10-25-38					x			x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-39					x			x	x	x	x	x	x	x	x	x	x	x
Removal and installation of triple hydraulic pump																			
Removal	10-25-39						x	x											
Installation	10-25-40						x	x											

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Removal and installation of steering cylinder																			
Removal	10-25-40	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-41	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Removal and installation of clutch assembly																			
Removal	10-25-41	x	x	x															
Installation	10-25-42	x	x	x															
Removal and installation of clutch assembly																			
Removal	10-25-42				x	x	x	x						x	x				
Installation	10-25-44				x	x	x	x						x	x				
Removal and installation of clutch assembly	10-25-44								x		x		x			x		x	
Removal and installation of Posi Torq ground drive																			
Removal of upper unit	10-25-45								x		x		x			x		x	
Removal of lower unit	10-25-46								x		x		x			x		x	
Installation of upper and lower unit	10-25-48								x		x		x			x		x	
Removal and installation of reverser clutch	10-25-48				x	x			x		x		x			x		x	
Removal and installation of hydrostatic fixed-displacement motor and variable pump	10-25-49									x		x					x		x
Removal and installation of mechanically swung unloading auger																			
Removal	10-25-49	x	x	x	x														
Installation and adjustment	10-25-49	x	x	x	x														
Removal and installation of hydraulic swing unloading auger																			
Removal	10-25-49					x	x	x	x	x	x	x	x	x	x	x	x	x	x
Installation	10-25-50					x	x	x	x	x	x	x	x	x	x	x	x	x	x

Group 00

Specifications and Special Tools

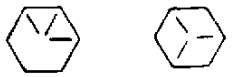
Specifications

Separation

TORQUES FOR HARDWARE

Engine rubber mountings (965 to 1085 Hydro/4)	70 Nm	50 ft-lb
Steering cylinder ball joint nuts	100 Nm	70 ft-lb
Steering arm attaching cap screws	180 Nm	130 ft-lb
Hydraulic steering unit lines	60 Nm	45 ft-lb
Front axle to angle support	200 Nm	145 ft-lb
Axle tube to transmission case (932, 942, 952)	90 Nm	65 ft-lb
Final drive to front axle support (955 to 1085 Hydro/4)	260 Nm	190 ft-lb
Front wheel nuts	420 Nm	300 ft-lb
Rear wheel bolts	180 Nm	130 ft-lb
Cylinder head, cap screws	150 Nm	110 ft-lb

Standard Torques

Recommended torques in Nm and ft-lb for UNC and UNF cap screws				
Head marking (identifying strength)	 or 10.9*		 or 12.9**	
Thread-O.D. (in.)	Nm	ft-lb	Nm	ft-lb
1/4	15	10	20	15
5/16	30	20	40	30
3/8	50	35	70	50
7/16	80	55	110	80
1/2	120	85	170	120
9/16	180	130	240	175
5/8	230	170	320	240
3/4	400	300	580	425
7/8	600	445	930	685
1	910	670	1400	1030
1-1/8	1240	910	1980	1460
1-1/4	1700	1250	2800	2060

NOTE: A variation of ± 10 % is permissible for all torques indicated in this chart.

Torque figures indicated above and in the Specification sections of this manual are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual.

* Tempered steel high strength bolts and cap screws
** Tempered steel extra high strength bolts and cap screws

Recommended torques in Nm and ft-lb for metric cap screws						
Head marking (identifying strength)	8.8*		10.9**		12.9***	
Thread-O.D. (mm)	Nm	ft-lb	Nm	ft-lb	Nm	ft-lb
M 5	7	5	9	6.5	10	8.5
M 6	10	8.5	15	10	20	15
M 8	30	20	40	30	40	30
M10	50	35	80	60	90	70
M12	100	75	140	100	160	120
M14	160	120	210	155	260	190
M16	240	175	350	260	400	300
M20	480	355	650	480	780	575
M24	820	605	1150	850	1350	995
M30	1640	1210	2250	1660	2700	1990
M36	2850	2110	4000	2950	4700	3465

NOTE: A variation of ± 10 % is permissible for all torques indicated in this chart.

Torque figures indicated above and in the Specification sections of this manual are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual.

* Regular bolts and cap screws
** Tempered steel high strength bolts and cap screws
*** Tempered steel extra high strength bolts and cap screws

Recommended torques in Nm and ft-lb for pipe and hose connections				
	with O-rings		with cone	
Thread size	Nm	ft-lb	Nm	ft-lb
3/8-24 UNF	7.5	5.5	8	6
7/16-20 UNF	10	7	12	9
1/2-20 UNF	12	9	15	11
9/16-18 UNF	15	11	25	18
3/4-16 UNF	25	20	45	35
7/8-14 UNF	40	30	60	45
1-1/16-12 UNC	60	45	100	75
1-3/16-12 UNC	70	50	120	90
1-5/16-12 UNC	80	60	140	105
1-5/8-12 UNC	110	80	190	140
1-7/8-12 UNC	150	110	220	160

The following table shows diameter comparisons between inch and metric bolts.

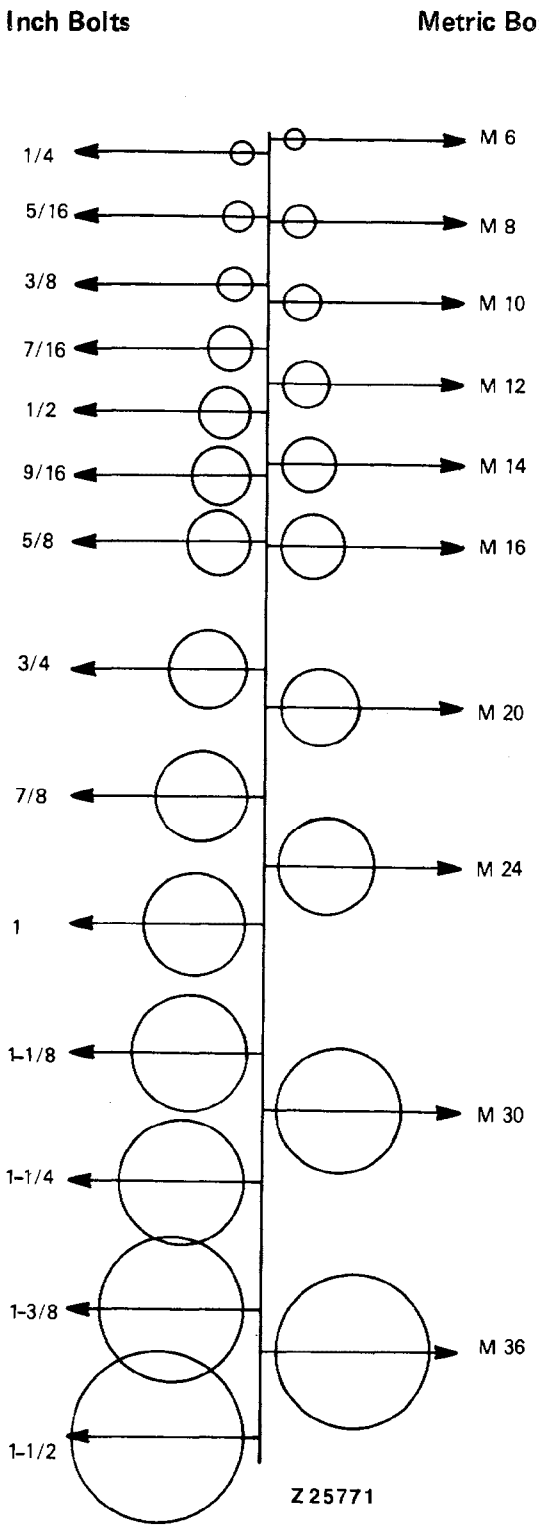


Fig. 1 – Comparison Table Inch/Metric Bolts

Special Tools*

Engine and Combine Tune-Up and Adjustments

Part No.	Description	Use
19.58-90.578	Special adapter (part of compression test set FKM 10021)	Checking compression
FKM 10002	Universal pressure test kit	Checking oil pressure
	Gas meter	Measuring volume of escaping exhaust fumes

Separation

JD 244-1	Lifting eye, straight	Removing and installing engine
JD 244-2	Lifting eye, bent	Removing and installing engine
JDG 23	Lifting bracket	Removing and installing engine

* For ordering instructions please contact your sales branch service department

Manufacturing Special Tools

Support Stand for Removing and Installing Front Axle on Combines with 3-Speed Transmission

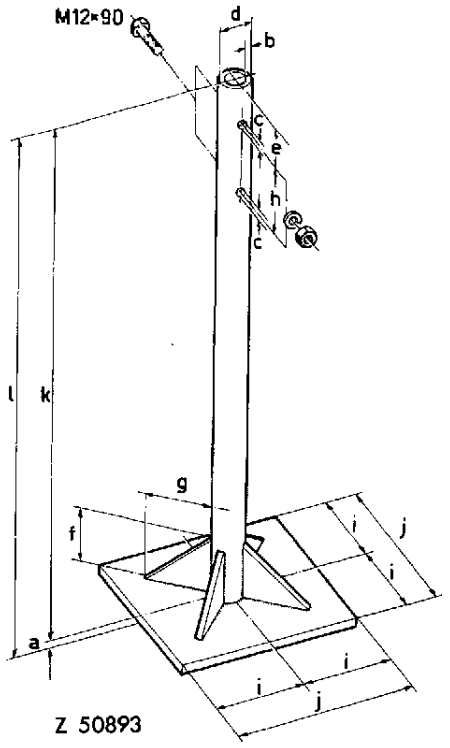


Fig. 2 – Support Stand

	mm	in.
a	8	0.315
b	10	0.394
c	13	0.512
d	50	1.968
e	60	2.362
f	90	3.543
g	100	3.937
h	122	4.803
i	150	5.905
j	300	11.811
k	950	37.402
l	958	37.717

Mounting Plate for Removing and Installing Transmission or Front Axle on Combines with 4-Speed Transmission and Mechanical Clutch Linkage

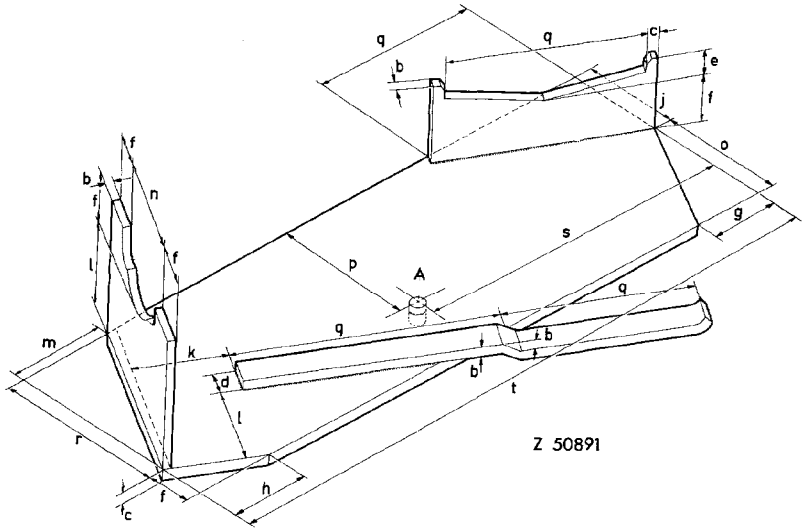


Fig. 3 – Mounting Plate

	mm	in.		mm	in.		mm	in.		mm	in.
b	12	0.472	f	60	2.362	k	130	5.118	p	200	7.874
c	15	0.590	g	95	3.740	l	140	5.512	q	230	9.055
d	35	1.378	h	110	4.330	m	145	5.709	r	240	9.449
e	40	1.575	j	125	4.921	n	160	6.299	s	445	17.520
"A" Depending on type of trolley jack						o	175	6.890	t	890	35.039

Mounting Plate for Removing and Installing Transmission or Front Axle on Combines with 4-Speed Transmission and Hydraulic Operated Clutch

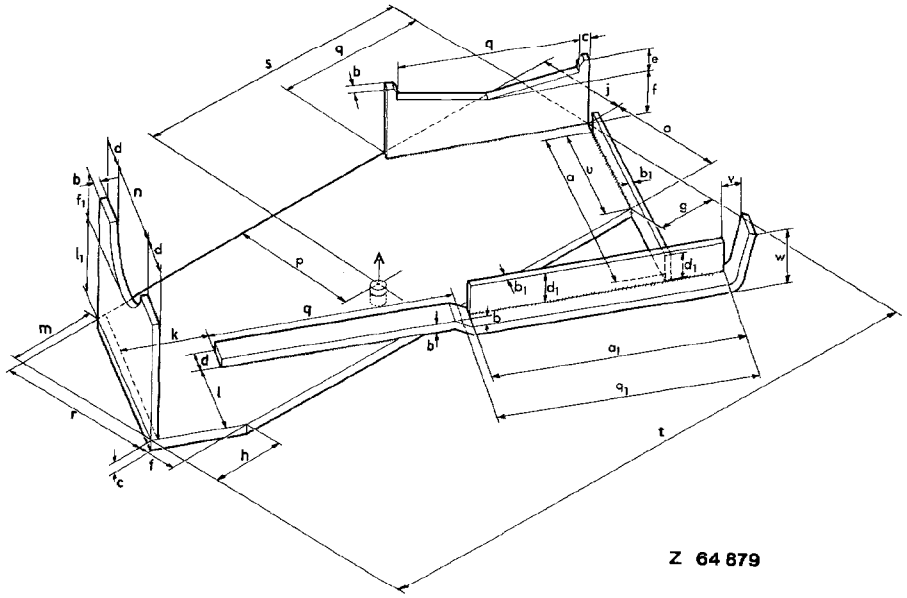


Fig. 4 – Mounting Plate

	mm	in.		mm	in.		mm	in.		mm	in.
a	400	15.748	e	40	1.575	l	140	5.512	q_1	310	12.205
a_1	300	11.811	f	60	2.362	l_1	113	4.449	r	240	9.449
b	12	0.472	f_1	87	3.425	m	145	5.709	s	445	17.520
b_1	10	0.394	g	95	3.740	n	210	8.268	t	890	35.039
c	15	0.590	h	110	4.330	o	175	6.890	u	220	8.661
d	35	1.378	j	125	4.921	p	200	7.874	v	55	2.165
d_1	50	1.969	k	130	5.118	q	230	9.055	w	100	3.937

"A" Depending on type of trolley jack

Mounting Plate for Removing and Installing Front Axle on Combines with 3-Speed Transmission

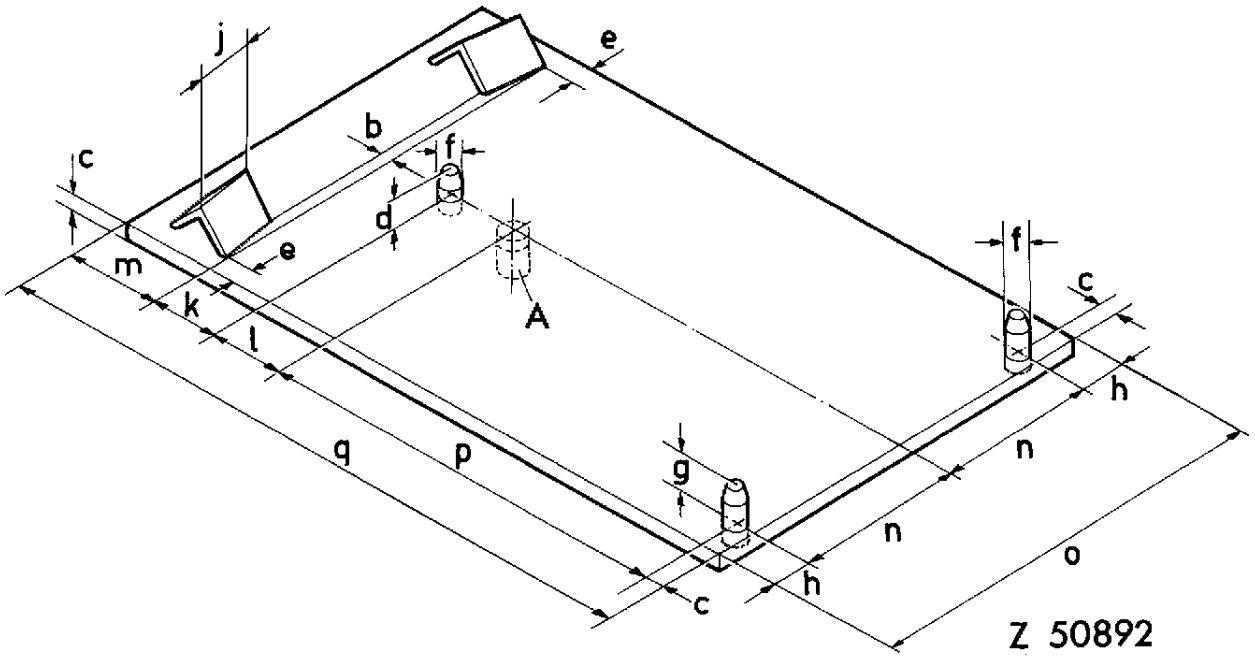


Fig. 5 – Mounting Plate

	mm	in.
b	3	0.118
c	10	0.394
d	14	0.551
e	15	0.590
f	16	0.630
g	25	0.984
h	28	1.102
j	35	1.378
k	47	1.850
l	50	1.968
m	63	2.480
n	112	4.409
o	280	11.024
p	285	11.220
q	455	17.913

"A" Depending on type of trolley jack

Group 05
General Information

Serial Numbers

NOTE: Please quote all the serial numbers stamped in the appropriate serial number plate when ordering replacement parts for your combine, combine engine and special equipment (e.g. operator's cab, cutting platform trailer).

The combine serial number is stamped into the name plate on the right-hand side of the operator's platform (see fig. 1).

The serial number is also stamped into the right-hand angle frame of the combine if the name plate gets lost for any reason (see fig. 2).

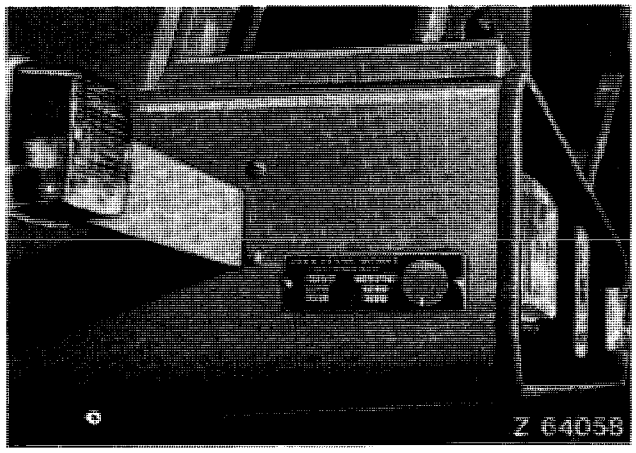


Fig. 1 – Serial Number Plate on Operator's Platform

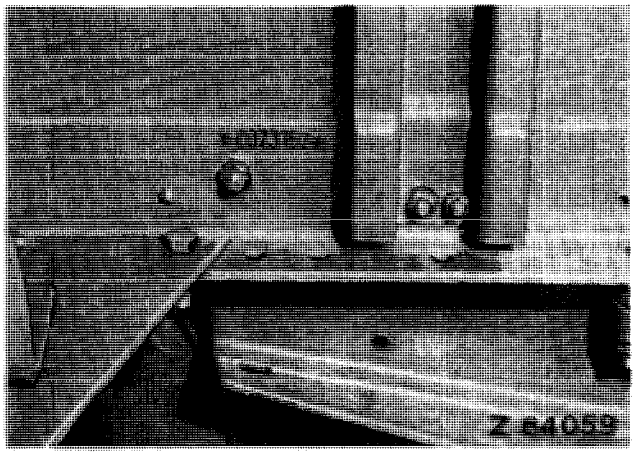


Fig. 2 – Serial Number Stamped into Angle Frame

The serial number of a John Deere engine is stamped into the name plate near the starting motor.

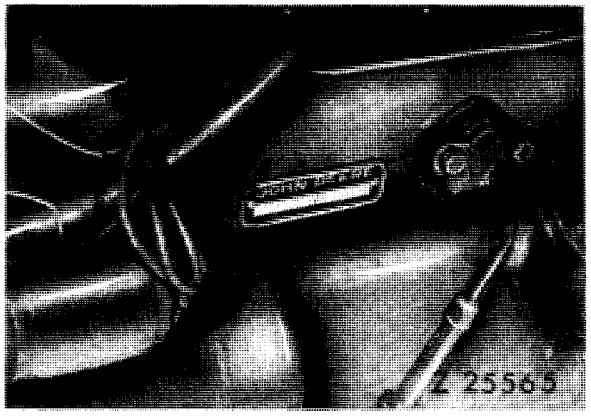


Fig. 3 – Engine Serial Number

The serial number of the cutting platform is stamped into a plate on the outer right-hand side panel of the platform (see fig. 4).*

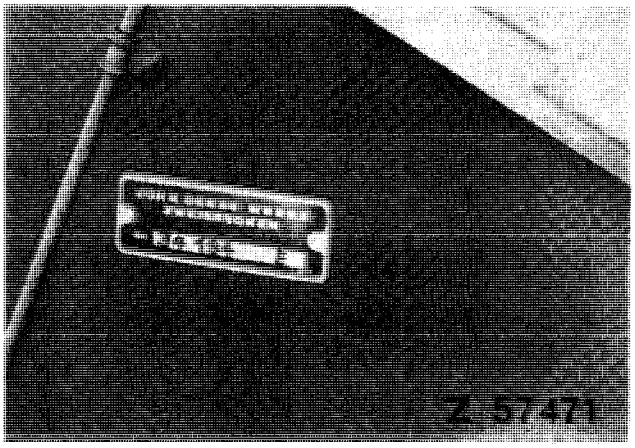


Fig. 4 – Serial Number of Cutting Platform (14 ft. cutting platform shown)

* The various sized cutting platforms are marked as follows:

B 8 ft. 5 in.	D 12 ft.	F 16 ft.
C 10 ft.	E 14 ft.	G 18 ft.

The corn head serial number is stamped into a plate on the right-hand side below the drive guard (see fig. 5).

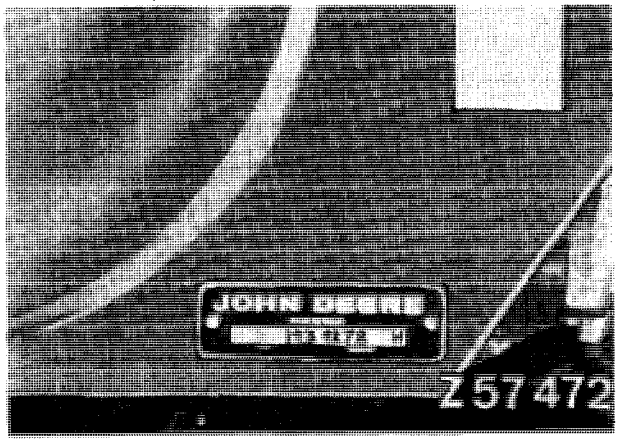


Fig. 5 – Corn Head Serial Number

The cutting platform trailer serial number is stamped into the name plate located on the right-hand side of the trailer drawbar behind the towing eye (see fig. 6).

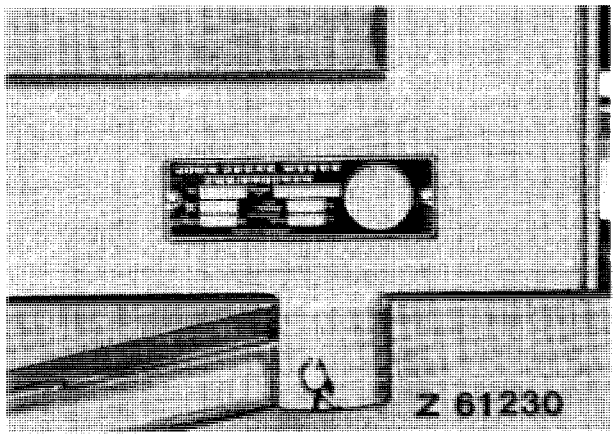


Fig. 6 – Serial Number of Cutting Platform Trailer

The operator's cab serial number is stamped into the name plate located on the left-hand inner side panel of cab (see figs. 7 and 8).

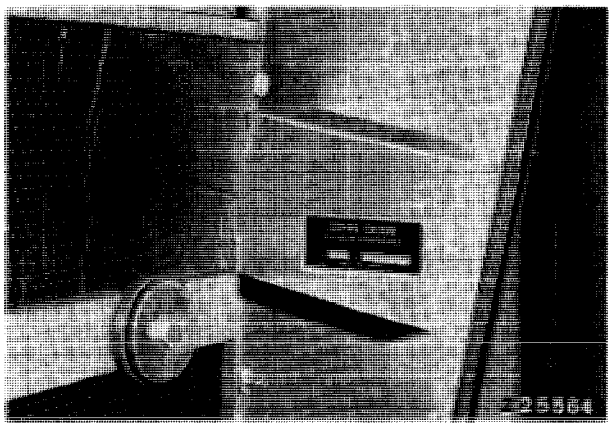


Fig. 7 – Standard Operator's Cab Serial Number

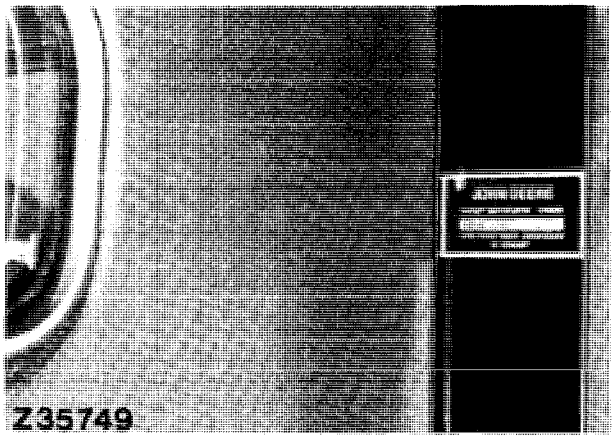


Fig. 8 – SG2 Cab Serial Number

The fuel injection pump type and serial number is stamped into the name plate located on pump housing (see figs. 9, 10, 11).

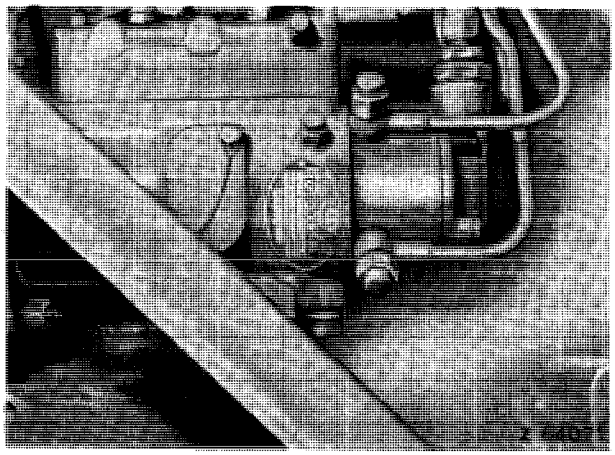


Fig. 9 – Serial Number of Roto-Diesel Fuel Injection Pump