

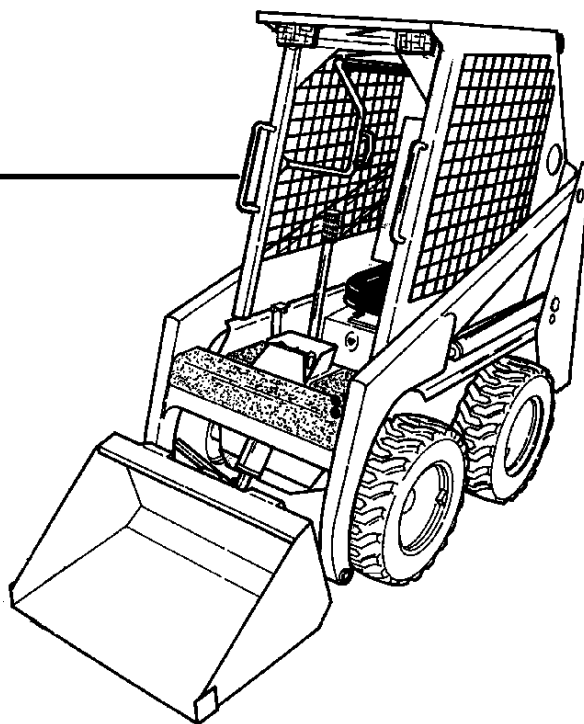
453



Bobcat®

Parts Manual

S/N 5618 11001 & Above
S/N 5619 11001 & Above
S/N 5150 11001 & Above
S/N 5151 11001 & Above



**EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)**

6724366 (10-00) Revised (2-02)



Printed in U.S.A.

© Bobcat Company 2002

Our customer service email: aservicemanualpdf@yahoo.com

453 ALPHABETICAL INDEX

AIR CLEANER	186, 187	INJECTION PUMP	148, 149, 176, 178
ALTERNATOR	108, 110	INJECTOR NOZZLES	151, 182
ANTI-FREEZE	254	LEVER, PINTLE	64
AUXILIARY HYDRAULICS ---	190, 192, 194	LEVER, STEERING	64
AXLE	36	LIFT ARM	24
BATTERY	92, 96	LIFT, SINGLE POINT	245
BELT, ALTERNATOR	114, 122	MAIN FRAME	12
BELT, DRIVE	112, 120	MANIFOLD, EXHAUST	147, 175
BLACK GOLD	254	MANIFOLD, INTAKE	147, 175
BLOCK HEATER	198	MOTOR, HYDRO	84, 86
BLOCK, ENG.	135, 164	MOUNT, ENGINE	114, 122
BLOWER, WHEEL	114, 116	MOUNT, HYD. PUMP	62
BOB-TACH	26	MUFFLER	114, 118
BOOT, RUBBER	33	OIL	254
BRAKE	38	OIL COOLER	58
BRAKE, CALIPER	214	OIL FILTER, ENGINE	134, 162
CAB	14	OIL PAN	132, 160
CAB ENCLOSURE	200, 202	OIL PUMP, ENGINE	164
CABLE, BATTERY	92, 96	PAINT	254
CABLE, SHUT OFF	123	PINTLE LEVER	64
CAMSHAFT	140, 168	PISTON, ENG.	138, 166
CAMSHAFT, FUEL	141, 169	PUMP, FUEL	148, 176
CAP, FUEL	28, 30	PUMP, GEAR	81
CAP, HYD. OIL	58	PUMP, HYDROSTATIC	65, 68, 72, 80
CAP, RADIATOR	112, 116	PUMP, INJECTION	148, 149, 176, 178
CHAIN, DRIVE	35	PUMP, OIL	136
CHAINCASE	12	PUMP, WATER	145, 173
CONTROLS HAND	64	RADIATOR	112, 116
COVER, VALVE	128, 156	RENTAL KIT	234, 238
CRANKCASE	135, 164	RIMS	252
CRANKSHAFT	138, 166	RING GEAR	112, 120
CYLINDER, LIFT	47	SEAT	21, 250, 251
CYLINDER, TILT	48	SEAT BAR	18
DECAL KIT	206, 208	SEAT BAR KIT	239
DECALS	205, 207	SEAT BELT	16, 241
DIPSTICK, ENG. OIL	132, 160	SOLENOID	92, 96
DOOR, CAB	200, 202	SOLENOID, SHUTDOWN	172
DOOR, REAR	31, 32	SOUND OPTION	220
ENGINE	127, 154	STARTER	101, 103, 106
EXHAUST PIPE	31, 32	STROBE LIGHT	247
EXT RMVL R WIN KIT	221	SWITCH, ENG. OIL PRESS.	92, 96, 164
FILTER, AIR	186, 187	SWITCH, HYDRO. PRESS.	92, 96
FILTER, ENGINE OIL	114, 122, 134, 162	SWITCH, HYDRO. TEMP	92, 96
FILTER, FUEL	185	TANK, FUEL	28, 30
FILTER, HYD. OIL	58	THERMOSTAT	146, 174
FIRE EXTINGUISHER	222	THROTTLE	123, 125
FLYWHEEL	112, 120	TIRES	252
FUEL PUMP	28, 30, 176	VALVE COVER	128, 156
FUEL SYSTEM	28, 30	VALVE, ENG	130, 158
FUEL VALVE KIT	223	VALVE, HYD.	52
GASKET KIT ENGINE	127, 154	WATER PUMP	145, 173
GAUGE	28, 30	WEIGHT	12
GEARCASE	134, 162	WINDOW, REAR	202, 232
GLOW PLUG	150, 179	WINDOW, SIDE	204
HARDHAT	246	WINDOW, TOP	202
HARNESS, ENGINE	92, 96		
HARNESS, LIGHTS	226		
HEAD, CYLINDER	131, 159		

453 CONTENTS

MAIN FRAME	12-34
MAIN FRAME	12-13
OPERATOR CAB	14-15
SEAT & SEAT BAR	16-21
SEAT	22-23
LIFT ARMS & BOB-TACH	24-25
BOB-TACH	26-27
FUEL SYSTEM	28-31
REAR DOOR	32-33
PANELS	34
DRIVE TRAIN	36-39
DRIVE TRAIN	36
AXLE	37
BRAKES	38-39
HYDRAULIC SYSTEM	40-56
HYDRAULIC CIRCUITRY	40-44
HYDRAULIC CIRCUITRY, W/BUCKET POSITIONING VALVE	45-47
LIFT CYLINDER	48
TILT CYLINDER	49
BICS BLOCK	50-51
HYDRAULIC VALVE	52-55
CONTROL PEDALS	56
HYDROSTATIC SYSTEM	58-87
HYDROSTATIC CIRCUITRY	58-63
HAND CONTROLS	64-65
HYDROSTATIC PUMP	66-81
GEAR PUMP	82
HYDROSTATIC MOTOR	84-87
ELECTRICAL SYSTEM	88-111
CAB ELECTRICAL CIRCUITRY	88-91
ENGINE ELECTRICAL CIRCUITRY	92-99
CONTROLS ELECTRICAL	100
STARTER	102-103
STARTER (SEALED)	104-105
STARTER (1,4 KW)	106-107
ALTERNATOR	108-111
ENGINE & ATTACHING PARTS	112-188
ENGINE & ATTACHING PARTS	112-123
THROTTLE & SHUT OFF CABLE	124
THROTTLE	126-127
ENGINE	128
ROCKER ARM COVER (KUBOTA D750)	129
ROCKER ARM & VALVES (KUBOTA D750)	130-131
CYLINDER HEAD (KUBOTA D750)	132
OIL PAN (KUBOTA D750)	133
GEARCASE (KUBOTA D750)	134-135
CRANKCASE (KUBOTA D750)	136-137
PISTON & CRANKSHAFT (KUBOTA D750)	138-139
MAIN BEARING CASE (KUBOTA D750)	140
CAMSHAFT (KUBOTA D750)	141
FUEL CAMSHAFT (KUBOTA D750)	142
STOP LEVER (KUBOTA D750)	143
GOVERNOR GROUP (KUBOTA D750)	144
SPEED CONTROL PLATE (KUBOTA D750)	145
WATER PUMPE (KUBOTA D750)	146
WATER FLANGE & THERMOSTAT (KUBOTA D750)	147
MANIFOLDS (KUBOTA D750)	148
FUEL & INJECTION PUMP (KUBOTA D750)	149
INJECTION PUMP (KUBOTA D750)	150
INJECTION NOZZLES (KUBOTA D750)	151
INJECTOR HOLDER (KUBOTA D750)	152
ENGINE & GASKET KITS (KUBOTA D722)	154-155
ROCKER ARM COVER (KUBOTA D722)	156-157
ROCKER ARM & VALVES (KUBOTA D722)	158-159
CYLINDER HEAD (KUBOTA D722)	160

453 CONTENTS (Cont'd)

ENGINE & ATTACHING PARTS (CONT'D)	112-188
OIL PAN (KUBOTA D722)	161
GEARCASE (KUBOTA D722)	162-163
CRANKCASE (KUBOTA D722)	164-165
PISTON & CRANKSHAFT (KUBOTA D722)	166-167
MAIN BEARING CASE (KUBOTA D722)	168
CAMSHAFT (KUBOTA D722)	169
FUEL CAMSHAFT (KUBOTA D722)	170
GOVERNOR GROUP (KUBOTA D722)	171
SPEED CONTROL PLATE (KUBOTA D722)	172
SPEED CONTROL & STOP LEVER (KUBOTA D722)	173
WATER PUMPE (KUBOTA D722)	174
WATER FLANGE & THERMOSTAT (KUBOTA D722)	175
MANIFOLDS (KUBOTA D722)	176
FUEL & INJECTION PUMP (KUBOTA D722)	177
INJECTION PUMP (KUBOTA D722)	178-179
INJECTION NOZZLES (KUBOTA D722)	180-181
INJECTOR HOLDER (KUBOTA D722)	182-185
FUEL FILTER	186
AIR CLEANER	187-188
ACCESSORIES & OPTIONS	191-256
AUXILIARY HYDRAULIC KIT	191-196
BACK-UP ALARM	197-198
BEACON LIGHT	199
BLOCK HEATER	200
BUCKET POSITION ON-OFF KIT	201
CAB ENCLOSURE	202-204
CAB WINDOWS	205-206
DECALS	207-210
EXPORT ACCESSORIES	211-222
EXTERNAL WINDOW REMOVAL KIT	223
FIRE EXTINGUISHER	224
FUEL VALVE KIT	225
HORN KIT	226
KEYLESS IGNITION	227
LIGHT KIT	228
LOCKING CAP & COVER	229
MUFFLER/PURIFIER KIT	230-231
PUSH TO OPERATE KIT	233
REAR WINDOW	234
RENTAL KIT	235-240
SEAT BAR KIT	241-242
SEAT BELT	243
SEAT KIT	245-246
SINGLE POINT LIFT	247
SOUND REDUCTION HARDHAT	248
STROBE LIGHT	249
SUSPENSION SEAT	251-253
TIRES & RIMS	254
BULK ITEMS	255-256
NUMERICAL INDEX	257-301
NUMERICAL INDEX	257-301

453 CONTENTS

MAIN FRAME	12-34
MAIN FRAME	12-13
OPERATOR CAB	14-15
SEAT & SEAT BAR	16-21
SEAT	22-23
LIFT ARMS & BOB-TACH	24-25
BOB-TACH	26-27
FUEL SYSTEM	28-31
REAR DOOR	32-33
PANELS	34
DRIVE TRAIN	36-39
DRIVE TRAIN	36
AXLE	37
BRAKES	38-39
HYDRAULIC SYSTEM	40-56
HYDRAULIC CIRCUITRY	40-44
HYDRAULIC CIRCUITRY, W/BUCKET POSITIONING VALVE	45-47
LIFT CYLINDER	48
TILT CYLINDER	49
BICS BLOCK	50-51
HYDRAULIC VALVE	52-55
CONTROL PEDALS	56
HYDROSTATIC SYSTEM	58-87
HYDROSTATIC CIRCUITRY	58-63
HAND CONTROLS	64-65
HYDROSTATIC PUMP	66-81
GEAR PUMP	82
HYDROSTATIC MOTOR	84-87
ELECTRICAL SYSTEM	88-111
CAB ELECTRICAL CIRCUITRY	88-91
ENGINE ELECTRICAL CIRCUITRY	92-99
CONTROLS ELECTRICAL	100
STARTER	102-103
STARTER (SEALED)	104-105
STARTER (1,4 KW)	106-107
ALTERNATOR	108-111
ENGINE & ATTACHING PARTS	112-188
ENGINE & ATTACHING PARTS	112-123
THROTTLE & SHUT OFF CABLE	124
THROTTLE	126-127
ENGINE	128
ROCKER ARM COVER (KUBOTA D750)	129
ROCKER ARM & VALVES (KUBOTA D750)	130-131
CYLINDER HEAD (KUBOTA D750)	132
OIL PAN (KUBOTA D750)	133
GEARCASE (KUBOTA D750)	134-135
CRANKCASE (KUBOTA D750)	136-137
PISTON & CRANKSHAFT (KUBOTA D750)	138-139
MAIN BEARING CASE (KUBOTA D750)	140
CAMSHAFT (KUBOTA D750)	141
FUEL CAMSHAFT (KUBOTA D750)	142
STOP LEVER (KUBOTA D750)	143
GOVERNOR GROUP (KUBOTA D750)	144
SPEED CONTROL PLATE (KUBOTA D750)	145
WATER PUMPE (KUBOTA D750)	146
WATER FLANGE & THERMOSTAT (KUBOTA D750)	147
MANIFOLDS (KUBOTA D750)	148
FUEL & INJECTION PUMP (KUBOTA D750)	149
INJECTION PUMP (KUBOTA D750)	150
INJECTION NOZZLES (KUBOTA D750)	151
INJECTOR HOLDER (KUBOTA D750)	152
ENGINE & GASKET KITS (KUBOTA D722)	154-155
ROCKER ARM COVER (KUBOTA D722)	156-157
ROCKER ARM & VALVES (KUBOTA D722)	158-159
CYLINDER HEAD (KUBOTA D722)	160

453 CONTENTS (Cont'd)

ENGINE & ATTACHING PARTS (CONT'D)	112-188
OIL PAN (KUBOTA D722)	161
GEARCASE (KUBOTA D722)	162-163
CRANKCASE (KUBOTA D722)	164-165
PISTON & CRANKSHAFT (KUBOTA D722)	166-167
MAIN BEARING CASE (KUBOTA D722)	168
CAMSHAFT (KUBOTA D722)	169
FUEL CAMSHAFT (KUBOTA D722)	170
GOVERNOR GROUP (KUBOTA D722)	171
SPEED CONTROL PLATE (KUBOTA D722)	172
SPEED CONTROL & STOP LEVER (KUBOTA D722)	173
WATER PUMPE (KUBOTA D722)	174
WATER FLANGE & THERMOSTAT (KUBOTA D722)	175
MANIFOLDS (KUBOTA D722)	176
FUEL & INJECTION PUMP (KUBOTA D722)	177
INJECTION PUMP (KUBOTA D722)	178-179
INJECTION NOZZLES (KUBOTA D722)	180-181
INJECTOR HOLDER (KUBOTA D722)	182-185
FUEL FILTER	186
AIR CLEANER	187-188
ACCESSORIES & OPTIONS	191-256
AUXILIARY HYDRAULIC KIT	191-196
BACK-UP ALARM	197-198
BEACON LIGHT	199
BLOCK HEATER	200
BUCKET POSITION ON-OFF KIT	201
CAB ENCLOSURE	202-204
CAB WINDOWS	205-206
DECALS	207-210
EXPORT ACCESSORIES	211-222
EXTERNAL WINDOW REMOVAL KIT	223
FIRE EXTINGUISHER	224
FUEL VALVE KIT	225
HORN KIT	226
KEYLESS IGNITION	227
LIGHT KIT	228
LOCKING CAP & COVER	229
MUFFLER/PURIFIER KIT	230-231
PUSH TO OPERATE KIT	233
REAR WINDOW	234
RENTAL KIT	235-240
SEAT BAR KIT	241-242
SEAT BELT	243
SEAT KIT	245-246
SINGLE POINT LIFT	247
SOUND REDUCTION HARDHAT	248
STROBE LIGHT	249
SUSPENSION SEAT	251-253
TIRES & RIMS	254
BULK ITEMS	255-256
NUMERICAL INDEX	257-301
NUMERICAL INDEX	257-301

HIGH MAINTENANCE ITEMS MODEL 453

PART NO.	DESCRIPTION	PAGE #
1 3974113	ENGINE OIL FILTER (5618 11001 & Ab. & 5619 11001 & Ab.) ..	115
2 6671057	ENGINE OIL FILTER (5150 11001 & Ab. & 5151 11001 & Ab.) ..	163
3 3885315	FUEL FILTER (5618 11001 & AB. & 5619 11001 & Ab.)	186
4 6667352	FUEL FILTER (5150 11001 & AB. & 5151 11001 & Ab.)	31
5 897064	AIR CLEANER	187
6 6630156	RADIATOR CAP	113
7 6599543	HYDROSTATIC FILTER, # 10 MICRON	59
8 6674687	BATTERY	93
9 6722344	BLACK GOLD Hyd. / Hydro. Fluid - 5 Gallons	256
10 6563328	BLACK GOLD Hyd. / Hydro. Fluid - 2-2 1/2 Gal. (5 Gal.)	256
11 6563330	BLACK GOLD Hyd. / Hydro. Fluid - 55 Gallon Drum	256
	(HYDRAULIC RESERVOIR CAPACITY)	5.3 Qts. (5 L.)
	(HYDRAULIC/HYDROSTATIC SYSTEM)	4.0 Gals. (15 L.)
12 6674204	MOTOR OIL 15W40 CE/SG -2.5 Gal..	256
13 6657299	MOTOR OIL 15W40 CE/SG -1 Qt.	256
14 6724558	MOTOR OIL 15W40 CE/SG - 1 Gal..	256
15 6674205	MOTOR OIL 10W30 CE/SG - 2.5 Gal.	256
16 6657301	MOTOR OIL 10W30 CE/SG -1 Qt.	256
17 6724557	MOTOR OIL 10W30 CE/SG - 1 Gal.	256
18 6674206	MOTOR OIL 30 CE/SG - 2.5 Gal..	256
19 6657303	MOTOR OIL 30 CE/SG -1 Qt.	256
20 6724559	MOTOR OIL 30 CE/SG - 1 Gal.	256
	(ENGINE OIL W/FILTER CAPACITY)	4 Qts. (3,8 L.)

GENERAL INFORMATION

When using the machine serial number, use the complete number. When Serial Numbers do not appear below the page heading, parts information applies to all loaders.

Some Serial Number breaks are not available at time of printing. These are listed as & Below or & Above.

The number shown in the quantity column in this manual is the number of parts needed for the illustration on the page. For some parts an "x" will be shown in the quantity column. This "x" indicates that the quantity to be used is "As Needed".

When references L.H. and R.H. are used in this manual, it is done from the operator's seat in the forward operating position.

To find the size and kind of bolt use the Bobcat Standard Microfiche (P/N 6566077).

Some of the illustrations and information found in this parts manual were supplied to Bobcat Company by machine component companies.

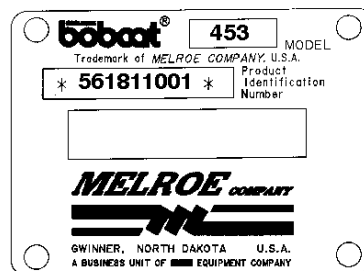
ABBREVIATIONS & SYMBOLS

- SALES = Order from Gwinner Sales Department
- NSS = Not Serviced Separately
- NAP = Not Available as Parts
- * = Changed or Added Sections, Pages or Part Number

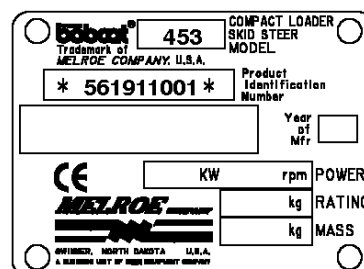
Disposition Code Definition (Found in the Remarks Column)

- [A] = Use Up
- [B] = Use Up on Other Application (See PNI)
- [C] = File PDR Report With Melroe Parts Sales
- [D] = Part Number Error

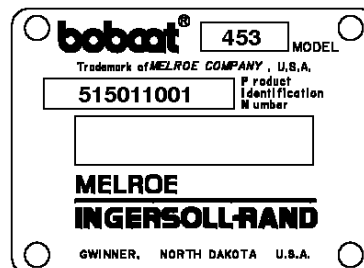
Explications en francais	Grid Nb	3
Erklärungen auf deutsch	Grid Nb	4
Spiegazioni in italiano	Grid Nb	5
Explicaciones en español	Grid Nb	6
Verklaring in het Nederlands	Grid Nb	7



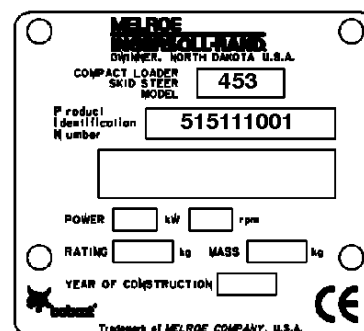
DOMESTIC



EXPORT



DOMESTIC



EXPORT

NOTE D'INFORMATION

Pour toute référence au numéro de série de l'engin, toujours donner le numéro complet.

Le chiffré apparaissant dans la colonne des quantités de ce manuel représentent le nombre de pièces nécessaires pour l'illustration reprise sur la page. Dans certains cas, on lira un "x" dans la colonne des quantités. Cet "x" indique que la quantité nécessaire est "selon besoin".

Pour toute référence vers la GAUCHE ou la DROITE dans ce manuel, considérer que la personne se trouve assise dans le siège de l'opérateur, en position de fonctionnement en marche avant.

Certaines illustrations et informations reprises dans ce manuel de pièces de rechange ont été fournies à Bobcat par des fabricants de composants.

ABREVIATIONS & SYMBOLES

SALES	= Commander au Service Ventes à Bruxelles
NSS	= Pas vendu séparément
NAP	= Non disponible comme pièce de rechange
*	= Chapitre, page ou numéro de pièce modifié ou supplémentaire
BTI	= Bobcat Technical Information Bulletin : voir à la fin de la microfiché du modèle concerné ou la microfiche générale reprenant l'ensemble des "BTI".
was 6535403	= était avant 6535403
adj. (adjustment)	= réglage
Assembly	= ensemble
available W/Ref.	= disponible avec réf.
bulk/sold per foot	= en vrac/vendu par pied
does not include	= ne comprend pas
included with	= compris dans
I.D.	= D.I. (diamètre intérieur)
O.D.	= D.E. (diamètre extérieur)
not in kit	= pas en kit
W/ - WO/	= inclus/ - non inclus/
Qty	= quantité requise
see page/ref.	= voir page/réf.
used with ref/	= utilisé avec réf.
0,05 inch thickness	= 0,05 pouce d'épaisseur (un pouce = 25.4 mm)
weld on	= à souder

ALLGEMEINE INFORMATIONEN

Bei Angabe der Maschinen-Seriennummer stets die komplette Nummer angeben.

Bei der in der Mengenspalte (Anzahl) in diesem Handbuch angegebenen Zahl handelt es sich um die Anzahl von Teilen, die für die Abbildung auf der betreffenden Seite benötigt werden. Bei manchen Teilen in der Mengenspalte ist ein "x" angegeben. Dieses "x" weist darauf hin, dass sich die Anzahl der verwendeten Teile auf den "Bedarf" bezieht.

Bei Verwendung der Seitenangaben links und rechts in diesem Handbuch gelten diese für die Blickrichtung vom Fahrersitz aus, und zwar in Vorwärts-Betriebsrichtung.

Einige der in diesem Ersatzteilhandbuch aufgeführten Abbildungen und Informationen wurden der Bobcat von den Herstellern von Maschinenbauteilen zur Verfügung gestellt.

ABKÜRZUNGEN UND SYMBOLE

SALES	= Bestellung bei der Verkaufsabteilung in Brüssel
NSS	= Nicht einzeln erhältlich
NAP	= Nicht als Ersatzteil erhältlich
*	= Geänderte oder hinzugefügte Abschnitte, Seiten oder Teilenummern
BTI	= Bobcat Technical Information Bulletin : Siehe am Ende der Mikrokarte des jeweiligen Modells oder der allgemeinen Mikrokarte der BTI.
was 6535403	= War 6535403
adj.	= Einstellung
Assembly	= Baugruppe
available W/Ref.	= erhältlich mit der Referenz
bulk/sold per foot	= Mengenabnahme / Verkauf pro Fuss
does not include	= beinhaltet nicht
included with	= enthalten in
I.D.	= Innendurchmesser
O.D.	= Aussendurchmesser
not in kit	= nicht in Bausatz
W/ - WO/	= mit/ - ohne/
Qty	= Anzahl
see page/ref.	= Siehe Seite / Referenz
used with ref.	= verwendet mit Referenz
0.05 inch thickness	= Dicke : 0.05 Zoll (ein Zoll = 25.4 mm)
weld on	= anschweißen

INFORMAZIONI GENERALI

Quando si usa il numero di serie della macchina usare il numero completo.

Il numero mostrato nella colonna della quantità di questo manuale corrisponde al numero di componenti necessari per l'illustrazione della pagina. Per alcuni componenti appare "X" nella colonna delle quantità. Questa "X" indica che la quantità da usare è "come necessario".

See in questo manuale si fa riferimento alla parte destra o sinistra, si intende dal sedile dell'operatore nella posizione in avanti di funzionamento.

Alcune delle illustrazioni e informazioni trovate in questo manuale di componenti sono state fornite alla Bobcat da società di componenti di macchine.

SIMBOLI E ABBREVIAZIONI

SALES	= Ordinare al servizio vendite di Bruxelles
NSS	= Non vendute separatamente
NAP	= Non disponibile come componente
*	= Sezioni, pagine o numeri di componente cambiati o aggiunti
BTI	= (Bobcat Technical information) Ved. al termine del microfiche del modello relativo oppure microfiche generale
was 6535403	= era 6535403
adj. (adjustment)	= regol. (regolazione)
Assembly	= Complessivo
available W/ref.	= disponibile con rif.
bulk/sold per foot	= alla rinfusa/venduto al piede
does not include	= non comprende
Included with	= compreso con
I.D.	= d. i.
O.D.	= d. e.
not in kit	= non fa parte del kit
W/ - WO/	= con - senza
Qty	= Qtà
see page/ref	= ved. pagina/rif.
used with ref.	= usato con il rif.
0,05 inch thickness	= spessore 0,05 pollici (un pollice = 25,4 mm)
weld on	= a saldare

INFORMACION GENERAL

Al utilizar el número de serie de la máquina, debe emplearse el número completo.

El número que figura en la columna de "Unidades" en este manual es el número de piezas que se necesitan para la ilustración que consta en la página. En algunas piezas aparece una "x" en la columna de "Unidades". Esta "x" indica que las unidades a utilizar son "según sea necesario".

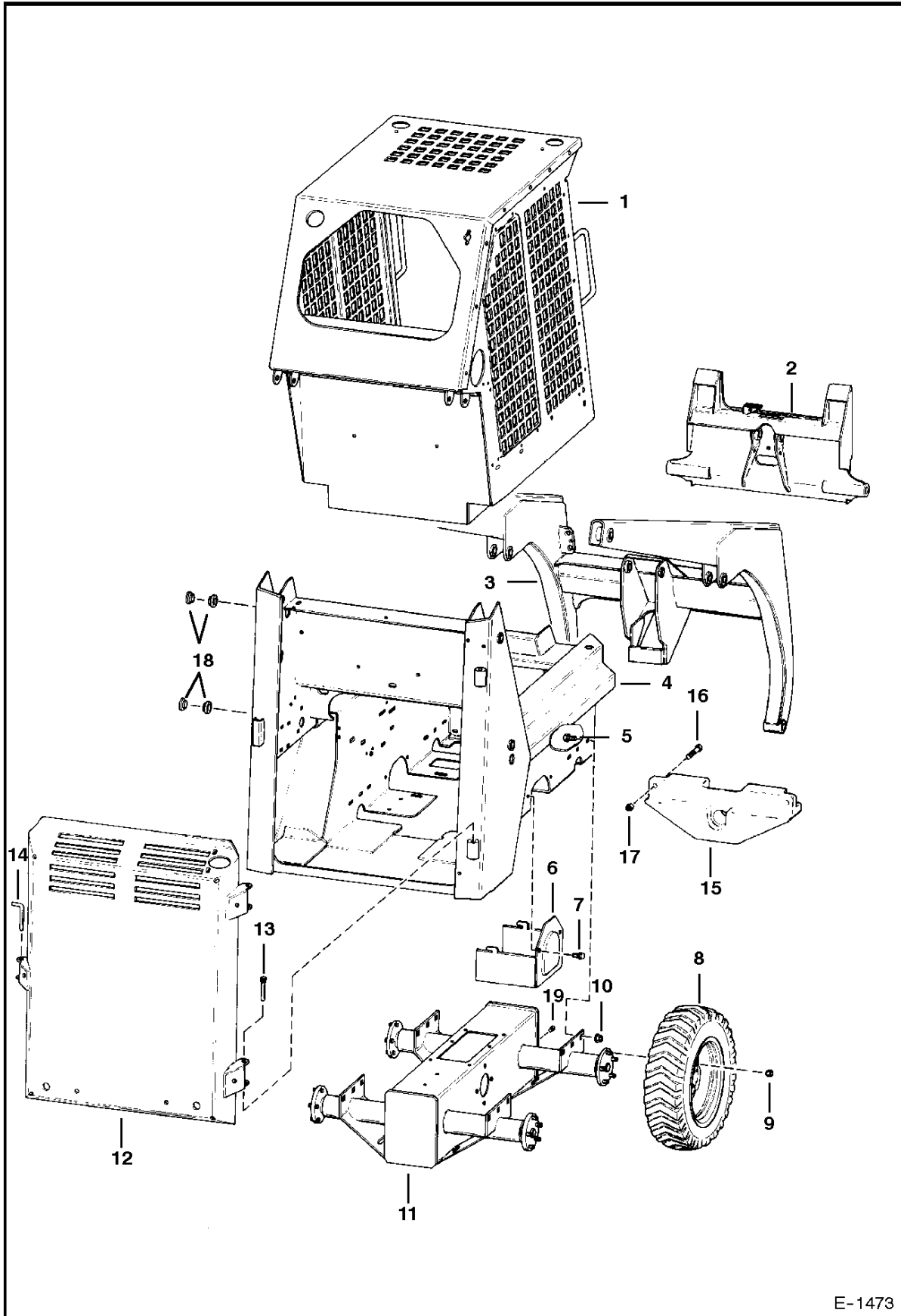
Cuando se empleen las referencias izq. y dcha., éstas se entienden mirando desde el asiento del conductor, en posición de marcha adelante.

Algunas de las ilustraciones y la información que figuran en este manual de piezas han sido facilitadas a Bobcat por empresas de componentes de máquinas.

ABREVIATURAS Y SIMBOLOS

VENTAS	= Pedido al Departamento de Ventas de Bruselas
NSS	= No se vende por separado
NAP	= No disponible como pieza de repuesto
*	= Secciones, páginas o referencias modificadas o añadidas
BTI	= (Bobcat Technical Information) Ver al final de la microficha del modelo afectado o en la microficha general "Boletín de Información Técnica Bobcat".
was 6535403	= era anteriormente el 6535403
adj. (adjustment)	= ajuste
assembly	= conjunto
available W/Ref.	= disponible con la ref.
bulk/sold per foot	= a granel/vendido por pies
does not include	= no incluye
included with	= incluido en
I.D.	= diámetro interior
O.D.	= diámetro exterior
not in kit	= no en el kit
W/ - WO/	= con/ - sin
Qty	= Unidades
see page /ref.	= ver página/ref.
used with ref.	= empleado con la ref.
0,05 inch thickness	= 0,05 pulgadas de espesor (1 pulgada = 25,4 mm)
weld on	= debe ser soldado

MAIN FRAME

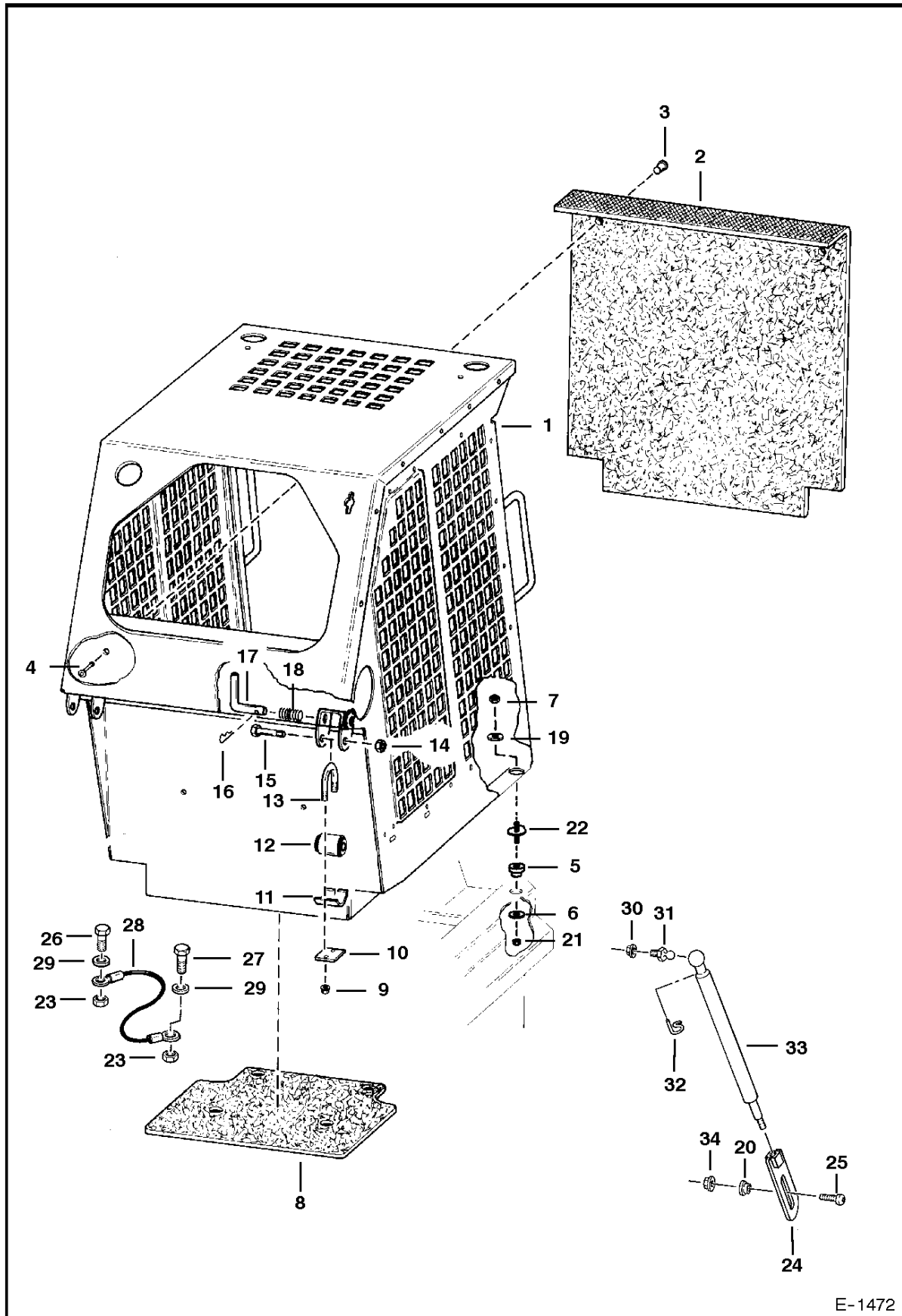


E-1473

MAIN FRAME

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1		CAB	See Page OPERATOR CAB(1)		1
2		BOB-TACH	See Page BOB-TACH(4)		1
3		LIFT ARM	See Page LIFT ARMS & BOB-TACH(3)		1
4	NAP	MAIN FRAMEinD1F	Order 6713926 And 2 Covers 6714137 - Relocation Of Fuel Filter Is Neccasary - Was 6708125 [A]	5618 11001 & Abv	1
4	6713926	MAIN FRAMEinD1F	May Need To Order Battery Pan 6715086 and (2) 7C-624 bolts	5150 11001 & Abv	1
5	37C-820	BOLT			12
6	6564185	COVER		5618 11001 & Abv	2
6	NAP	COVER	SEE BTI 327 - Order 6718144 -	5150 12634 & Bel	2
6	6718144	COVER		5150 12635 & Abv	2
7	84G-3712	BOLT			4
8		TIRES & RIMS	See Page TIRES & RIMS(1)		4
9	6561152	NUT			20
10	83D-8	NUT			12
11	6706429	CHAINCASE			1
12		REAR DOOR	See Page REAR DOOR(2)		1
13	6564340	PIN			2
14	6564192	PIN			1
15	6564681	WEIGHT			1
16	17C-828	BOLT			2
17	57D-8	NUT			2
18	6563829	BUSHING	Weld On		8
19	6731121	PLUG	Was 11F-12 [A]		1

OPERATOR CAB



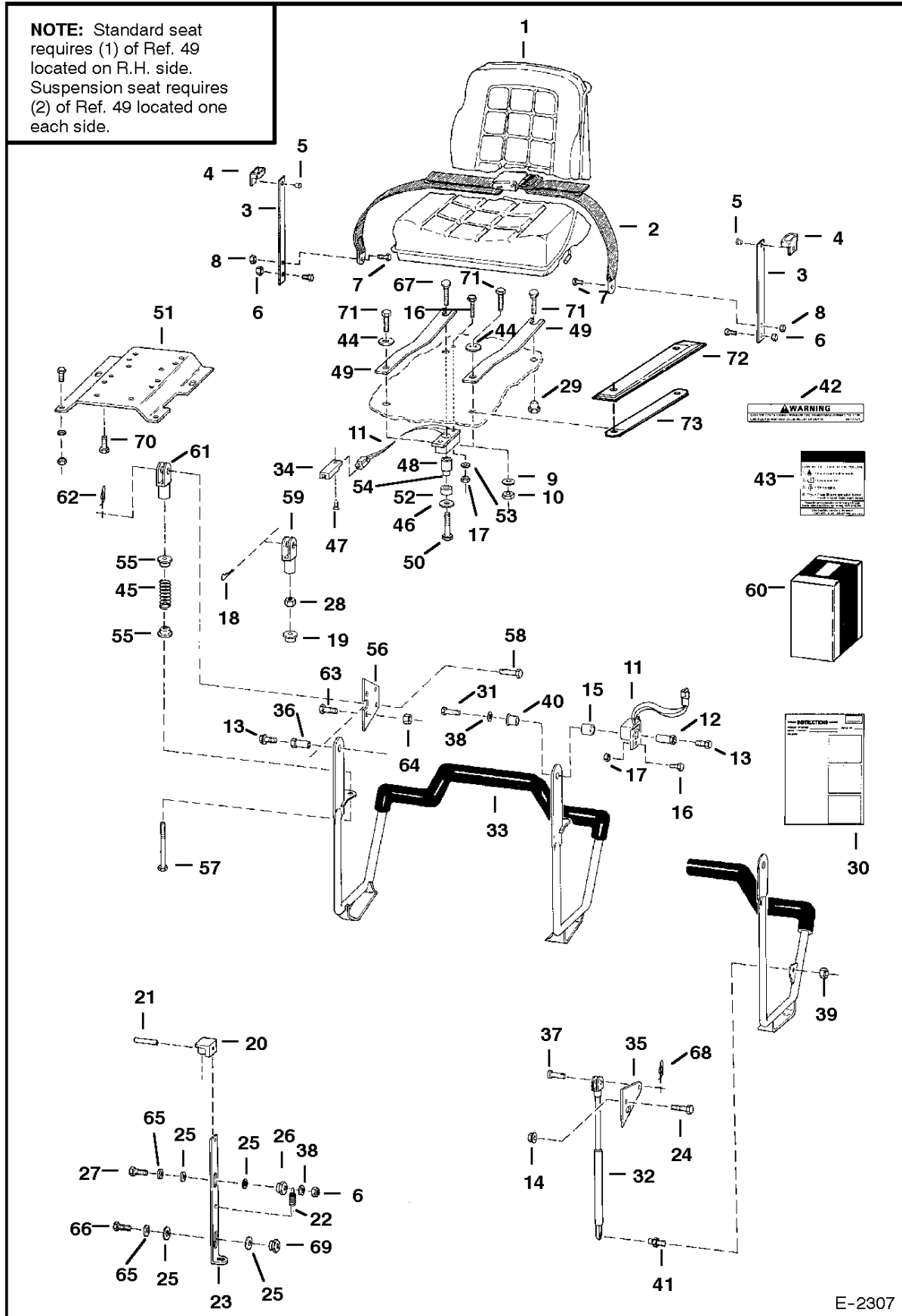
E-1472

OPERATOR CAB

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6708601	OPERATOR CAB			1
2	6708486	INSULATION	Was 6565199 [A]		1
3	6563156	SLEEVE			2
4	6630207	RIVET			2
5	6560633	MOUNT	rubber		2
6	6515817	WASHER			2
7	59D-8	NUT			2
8	6708487	INSULATION			1
9	83D-6	NUT			4
10	6565068	PLATE			2
11	6563997	RETAINER			2
12	6562602	BUSHING			2
13	6563998	U-BOLT			2
14	85D-10	NUT			2
15	17C-1048	BOLT			2
16	1306637	PIN			1
17	6593389	PIN			1
18	6593390	SPRING			1
19	6553709	WASHER			2
20	6706272	BUSHING			2
21	85D-8	NUT			2
22	6702971	BOLT			2
23	61D-5	NUT			2
24	6706092	END	gas spring		1
25	25G-616	BOLT			1
26	17C-512	BOLT			1
27	84G-3112	BOLT			1
28	6594283	WIRE			1
29	25E-15	WASHER			2
30	83D-5	NUT			2
31	6706519	STUD	ball		2
32	6706520	RING	retaining		2
33	6664206	GAS SPRING			1
34	95D-6	NUT	Was 91D-6 [A]		2

SEAT & SEAT BAR

NOTE: Standard seat requires (1) of Ref. 49 located on R.H. side.
Suspension seat requires (2) of Ref. 49 located one each side.



E-2307

SEAT & SEAT BAR

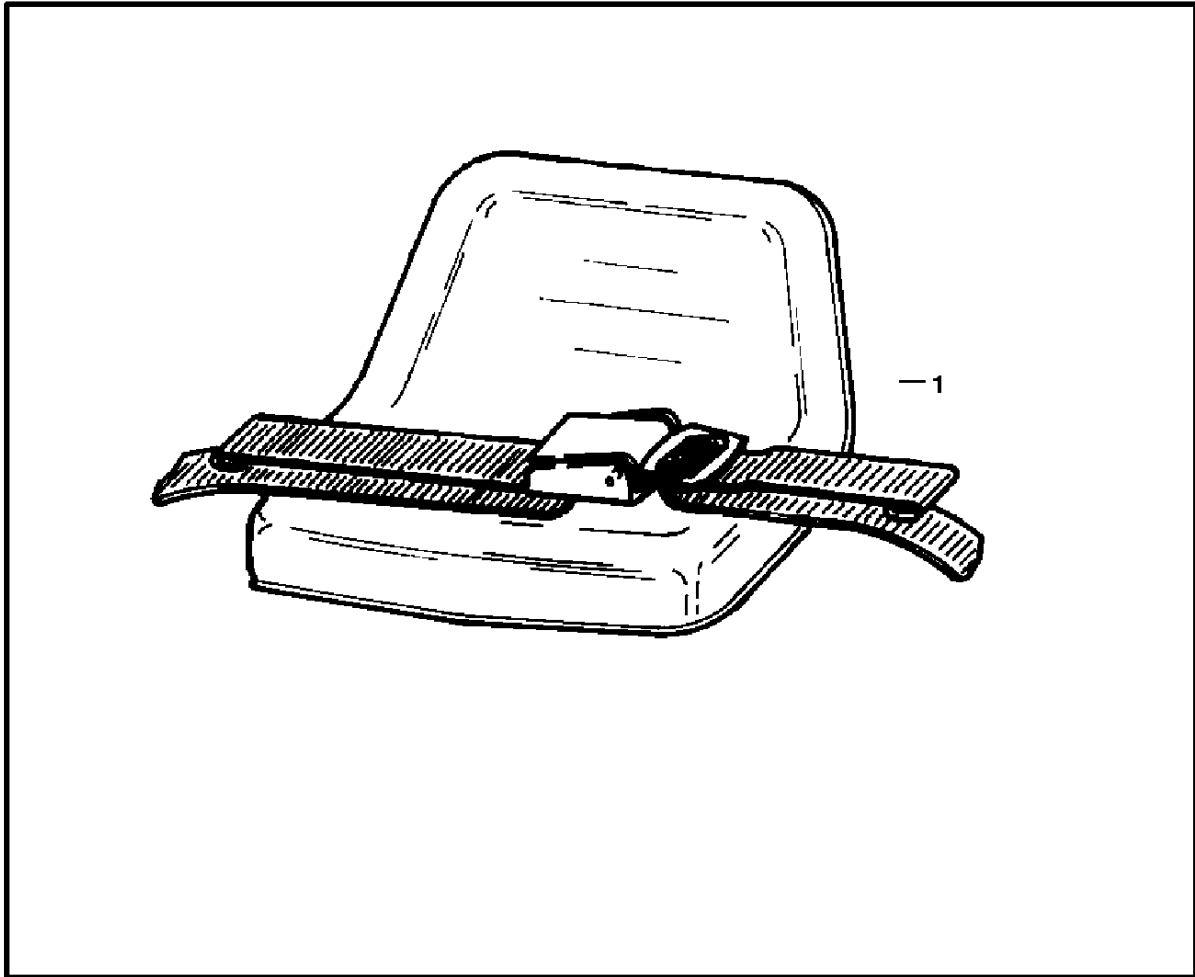
Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1		SEAT	See Page SEAT(1)		1
2	NAP	SEAT BELT	Order 6725403 - Was 6564774 [A]		1
2	NAP	SEAT BELT	Order 6725403 - Was 6667875 [A]		1
2	NAP	SEAT BELT	w/spring plates - Order 6675074 seat belt & (2) of Ref. SEAT & SEAT BAR(3) (6725373 seat belt) - Was 6725403 [A]		1
2	6675074	SEAT BELT	w/o spring plates		1
3	NAP	GUIDE ASSY	W/Ref. SEAT & SEAT BAR(4) & SEAT & SEAT BAR(5) - 13.75' (349,2 mm) Used W/NAP 6564774 seat belt - Was 6565354 [A]		2
3	NAP	GUIDE ASSY	W/Ref. SEAT & SEAT BAR(4) & SEAT & SEAT BAR(5) - 12.25' (311,1 mm) Used W/NAP 6667875 seat belt - !Order 6711908 spring plate,		2
3	6711908	SPRING PLATE	Use W/Ref. SEAT & SEAT BAR(2) (NAP/6667875)		2
3	6725373	SPRING PLATE	Use W/Ref. SEAT & SEAT BAR(2) (6675074 seat belt)		2
4	6565355	GUIDE			2
5	6630207	RIVET			4
6	85D-6	NUT			4
7	17C-715	BOLT			2
8	85D-7	NUT			2
9	6701174	WASHER			2
10	61D-5	NUT		5618 11001 & Abv	2
10	59D-5	NUT		5150 12400 & Abv	4
11	6670652	SENSOR	Also Order Ref. SEAT & SEAT BAR(54) - Was 6667690 [A]		2
12	6706685	BUSHING			1
13	35C-608	BOLT		5618 11001 & Abv!	2
13	35C-612	BOLT		5150 11120 & Abv'	2
14	83D-6	NUT			6
15	6671135	BUSHING	Was 6670688 [A]		2
16	35C-410	BOLT	fastens thru tab - 5/8' (15,9 mm)		2
16	17C-428	BOLT	fastens thru body -13/4'(44.4mm) - Was 6710539 [A]		2
17	83D-4	NUT	fastens thru tab		2
17	50D-12	NUT	fastens thru body		1
18	1306637	PIN		5150 11119 & Bel	1
18				5151 11027 & Bel	1
19	6571991	WASHER		5150 11120 & Abv	2
19				5151 11028 & Abv	2
20	6702343	BLOCK	Was 6563148 [A]		2
21	14J-2512	PIN			2
22	6594284	SPRING	Was 6702430 [A]		2
23	6704557	LOCK	L.H.		1
23	6704556	LOCK	R.H.		1
24	17C-624	BOLT	Was 17C-612 [D]		4
25	6700170	WASHER	plastic		8
26	6559479	NUT			4
27	17C-624	BOLT	Was 17C-612 [B]		4
28	8D-6	NUT	jam	5150 11120 & Abv	2
28				5151 11028 & Abv	2
29	6707319	NUT	spacer		1
30	6722392	INSTRUCTIONS	For Ref. SEAT & SEAT BAR(28)		1
31	17C-608	BOLT		5150 11120 & Abv	2
31				5151 11028 & Abv	2
32	6664207	GAS SPRING		5618 11001 & Abv	1
32				5619 11001 & Abv	1
32				5150 11119 & Bel	1
32				5151 11027 & Bel	1

SEAT & SEAT BAR

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
33	6707717	SEAT BAR	for use W/Gas Spring	5618 11001 & Abv	1
33				5619 11001 & Abv	1
33				5150 11119 & Bel	1
33				5151 11027 & Bel	1
33	NAP	SEAT BAR	for use W/Compression Spring -	5618 11001 & Abv	1
33	6713886	SEAT BAR	for use W/ compression spring	5150 11120 & Abv	1
33				5151 11028 & Abv	1
34	6665000	CLIP			1
35	6708595	BRACKET			1
36	6706962	BUSHING			1
37	4F-5062	PIN			1
38	25E-17	WASHER		5618 11001 & Abv	3
38				5619 11001 & Abv	3
38				5150 11119 & Bel	3
38				5151 11027 & Bel	3
38	25E-17	WASHER		5150 11120 & Abv	5
38				5151 11028 & Abv	5
39	85D-5	NUT			1
40	6664882	BUSHING	keyed		2
41	6649244	BALL STUD			1
42	6577754	DECAL	warning		1
43	6707134	DECAL	instruction for LCS		1
44	6706890	WASHER		5150 11120 & Abv	2
44				5151 11028 & Abv	2
45	6701535	SPRING		5150 11120 & Abv	2
45				5151 11028 & Abv	2
46	25E-16	WASHER			1
47	6664221	RETAINER			1
48	6710751	BUSHING	spacer		1
49	6706966	SPRING	plate		1
50	17C-508	BOLT			2
51	6594257	BRACKET		5618 11001 & Abv	1
51				5619 11001 & Abv	1
51				5150 12399 & Bel	1
51				5151 12399 & Bel	1
52	6666608	BUSHING	tapped magnetic		1
53	25E-10	WASHER			1
54	6664881	KEY	magnet bushing		1
55	6710659	BUSHING		5618 11001 & Abv	2
55				5619 11001 & Abv	2
55				5150 11119 & Bel	2
55				5151 11027 & Bel	2
55	6710659	BUSHING		5150 11120 & Abv	4
55				5151 11028 & Abv	4
56	6710660	MOUNT		5150 11120 & Abv	2
56				5151 11028 & Abv	2
57	6713887	BOLT	Was 6711897 [A]	5150 11120 & Abv	2
57				5151 11028 & Abv	2
58	4F-6106	PIN		5150 11120 & Abv	2
58				5151 11028 & Abv	2
59	2J-6208	CLEVIS		5150 11120 & Abv	2
59				5151 11028 & Abv	2
60	NAP	KIT	Order Ref. SEAT & SEAT BAR(2) - Was 6713061 [A]		1
61	6713589	CLEVIS		5150 11120 & Abv	2
61				5151 11028 & Abv	2

SEAT & SEAT BAR

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
62	6631418	PIN		5150 11120 & Abv	2
62				5151 11028 & Abv	2
63	17C-712	BOLT		5150 11120 & Abv	2
63				5151 11028 & Abv	2
64	91D-7	NUT		5150 11120 & Abv	2
64				5151 11028 & Abv	2
65	872229	WASHER			2
66	35C-616	BOLT			2
67	35C-516	BOLT			1
68	6631418	PIN	ring	5618 11001 & Abv	1
68				'5619 11001 & Abv	1
68				5150 11119 & Bel	1
68				5151 11027 & Bel	1
69	6594298	NUT			2
70	17C-510	BOLT		5618 11001 & Abv	4
71	17C-516	BOLT		5618 11001 & Abv	3
72	6711729	COVER			2
73	6711730	STRIP			2
74	17C-512	BOLT		5150 12400 & Abv	2
75	37C-516	BOLT		5150 12400 & Abv	2

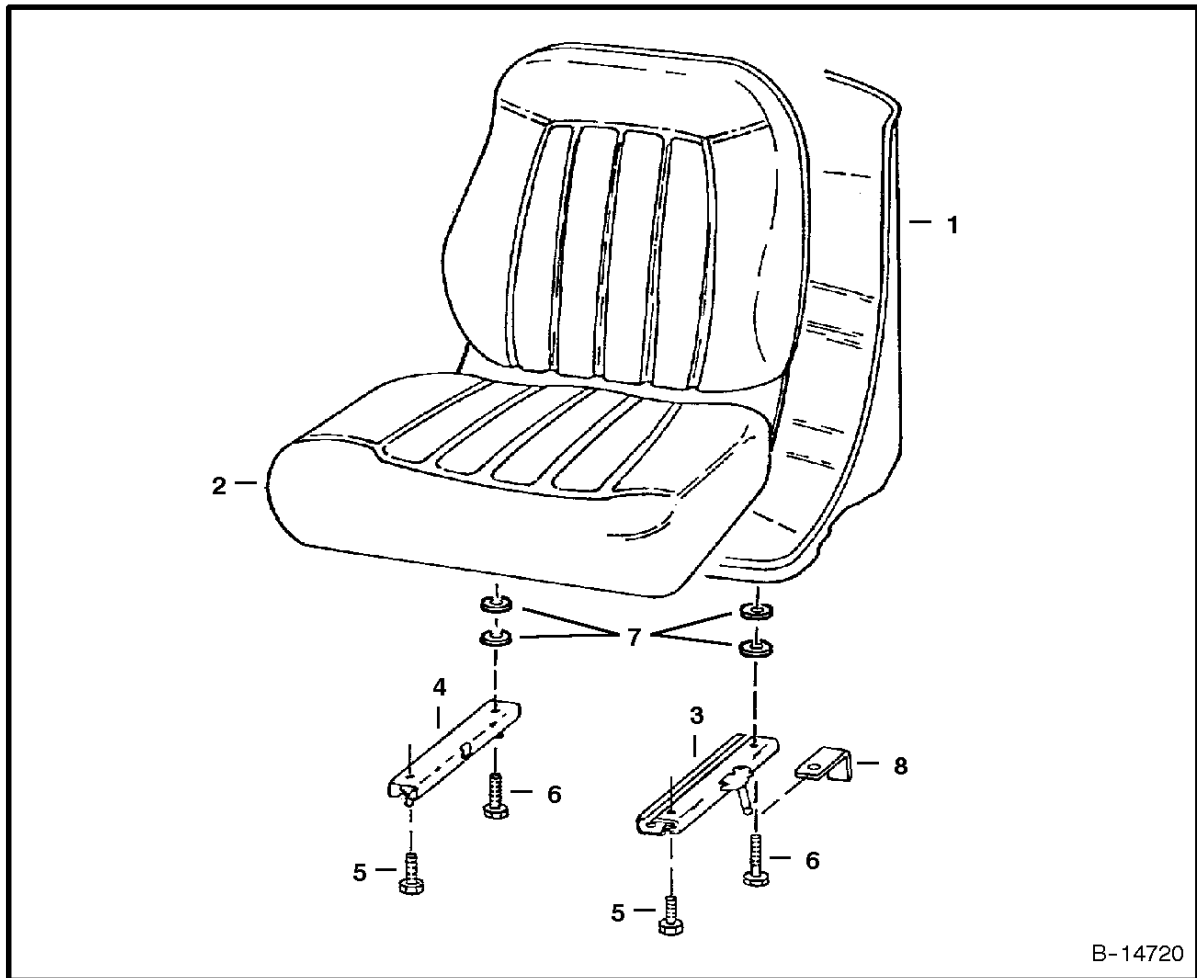


SEAT
(5618 11001 & Above, 5619 11001 & Above)
(5150 11001- 13252, 5151 11001-)

Ref. Part	No. Number	Description	Remarks	Serial Number	Qty.
------------------	-------------------	--------------------	----------------	----------------------	-------------

SEAT

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6591598	SEATinD1J	Milsco - 10 3/4' from base		1
1	6643253	SEAT	Michigan		1
2	6672715	SPACER	Was 7000010 [A]		4
3	6668953	BRACKET	See S/L Dated 16 April 1996		2

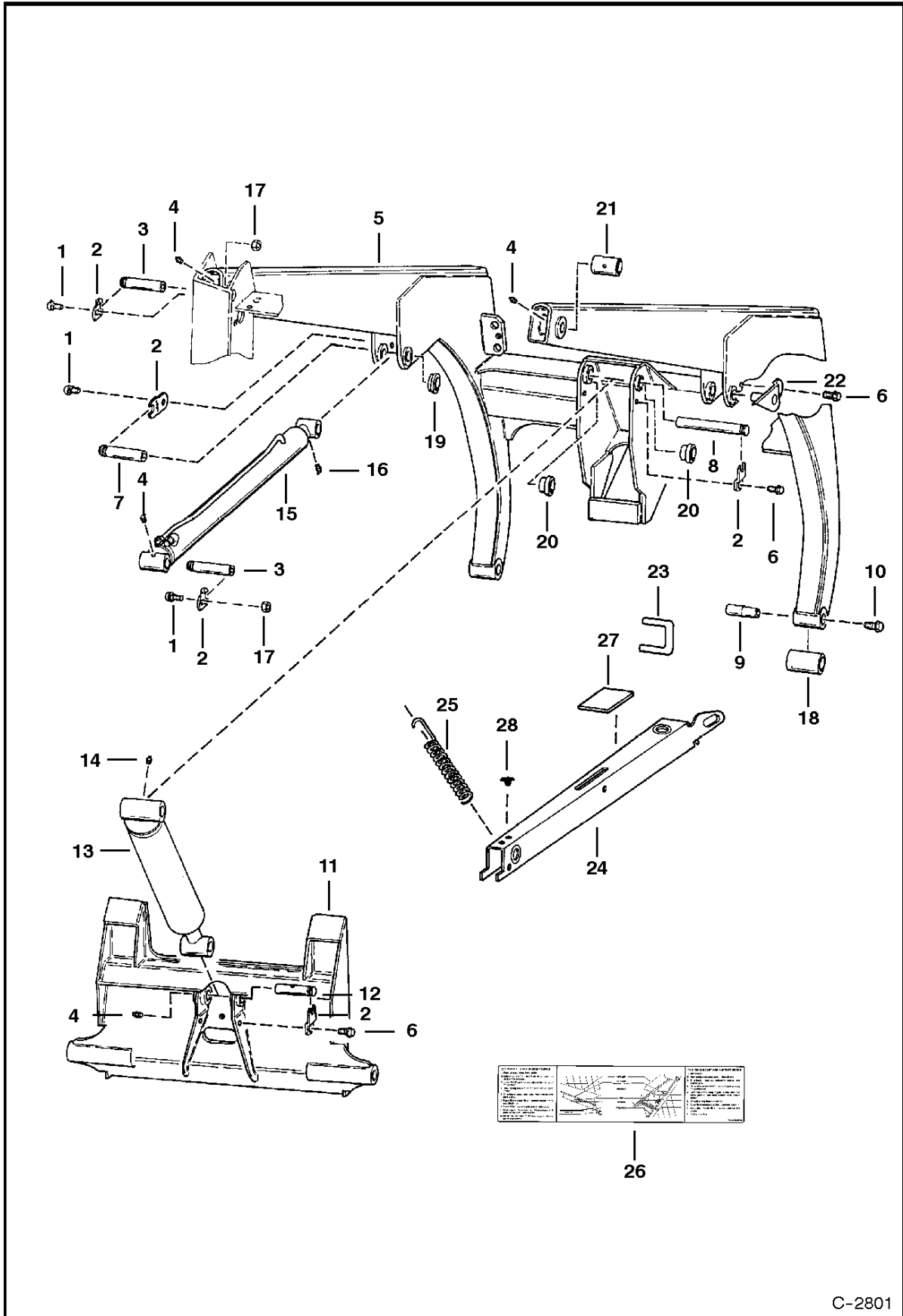


SEAT
(Michigan)
(5150 13253 & Above, 5151 & Above)

Ref. Part No. Number	Description	Remarks	Serial Number	Qty.
-------------------------	-------------	---------	---------------	------

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1		NAPinD1}}	SEAT	W/Ref. ref15dbOodave-ref1LdbOodave & ref1WdbOodave - Order 6	81
1	6669135	SEAT	W/Ref. SEAT(2)-SEAT(2)		1
2	6670160	CUSHION	W/edging, clip & (2) grommets		1
2	NSS	EDGING			1
2	NSS	CLIP			1
3	NAP	TRACK	L.H. - W/ 8' (203,2 mm) Latch - Was 6669088 [A]		1
3	6674013	TRACK	L.H. - W/ 10' (254mm) Latch		1
4	6669089	TRACK	R.H. - W/O Latch		1
5	25G-512	BOLT	6669135 Seat uses (2) bolts		4
6	25G-520	BOLT			2
7	6672715	SPACER			4
8	6668953	BRACKET			1

LIFT ARMS & BOB-TACH

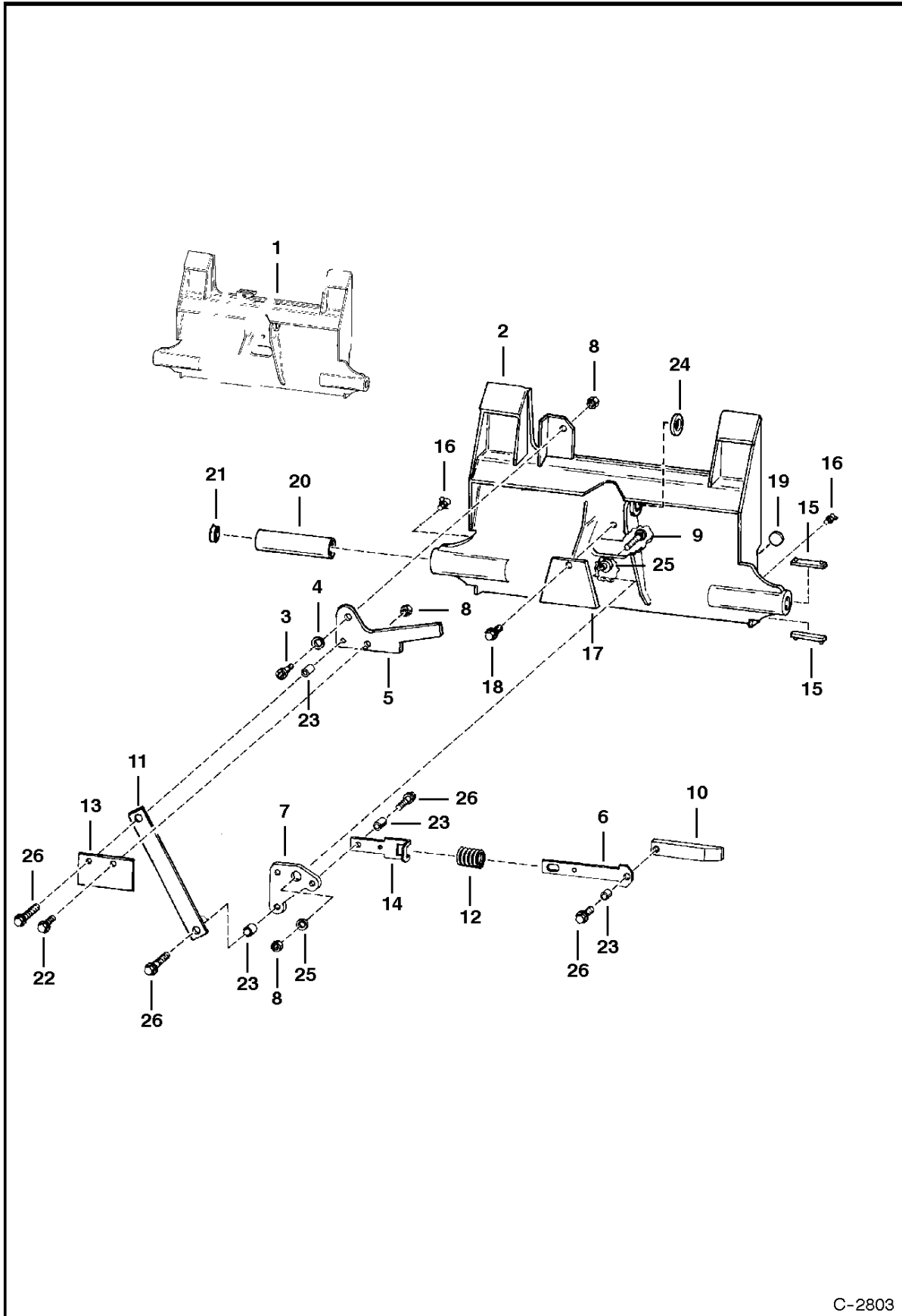


C-2801

LIFT ARMS & BOB-TACH

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	10C-512	BOLT	Was 6553808 [A]		4
2	6586307	RETAINER	Was 6563850 [A]		8
3	6563848	PIN			4
4	10H-25	GREASE ZERK			3
5	6563844	LIFT ARMinD1L	Also Order 6579528, 6569233 6565257, 6565258		1
6	84G-3712	BOLT			4
7	6563847	PIN			2
8	6563846	PIN			1
9	6564198	PIN			2
10	47C-832	BOLT	Was 17C-828 [B]		2
11		BOB-TACH	See Page BOB-TACH(4)		1
12	6563845	PIN			1
13		CYLINDER	tilt - See Page TILT CYLINDER(1)		1
14	10H-35	GREASE ZERK			1
15		CYLINDER	lift - See Page LIFT CYLINDER(1)		2
16	11H-25	GREASE ZERK			4
17	83D-5	NUT			4
18	6563832	BUSHING	Weld On		2
18			Painted Only		1
19	6563829	BUSHING	Weld On		4
20	6563830	BUSHING	Weld On		2
21	6563831	BUSHING	Weld On		2
22	6706663	PIN			1
23	6714811	PIN	Retainer - Was 6706660 [A]		1
24	6728115	SUPPORT	Lift arm - Was 6706667 [A]		1
25	6579072	SPRING	For lift arm support - Was 6700743 [A]		1
26	6711659	DECAL	Was 6706669 [A]		1
27	6704436	PAD			1
28	6519178	BUMPER			1

BOB-TACH

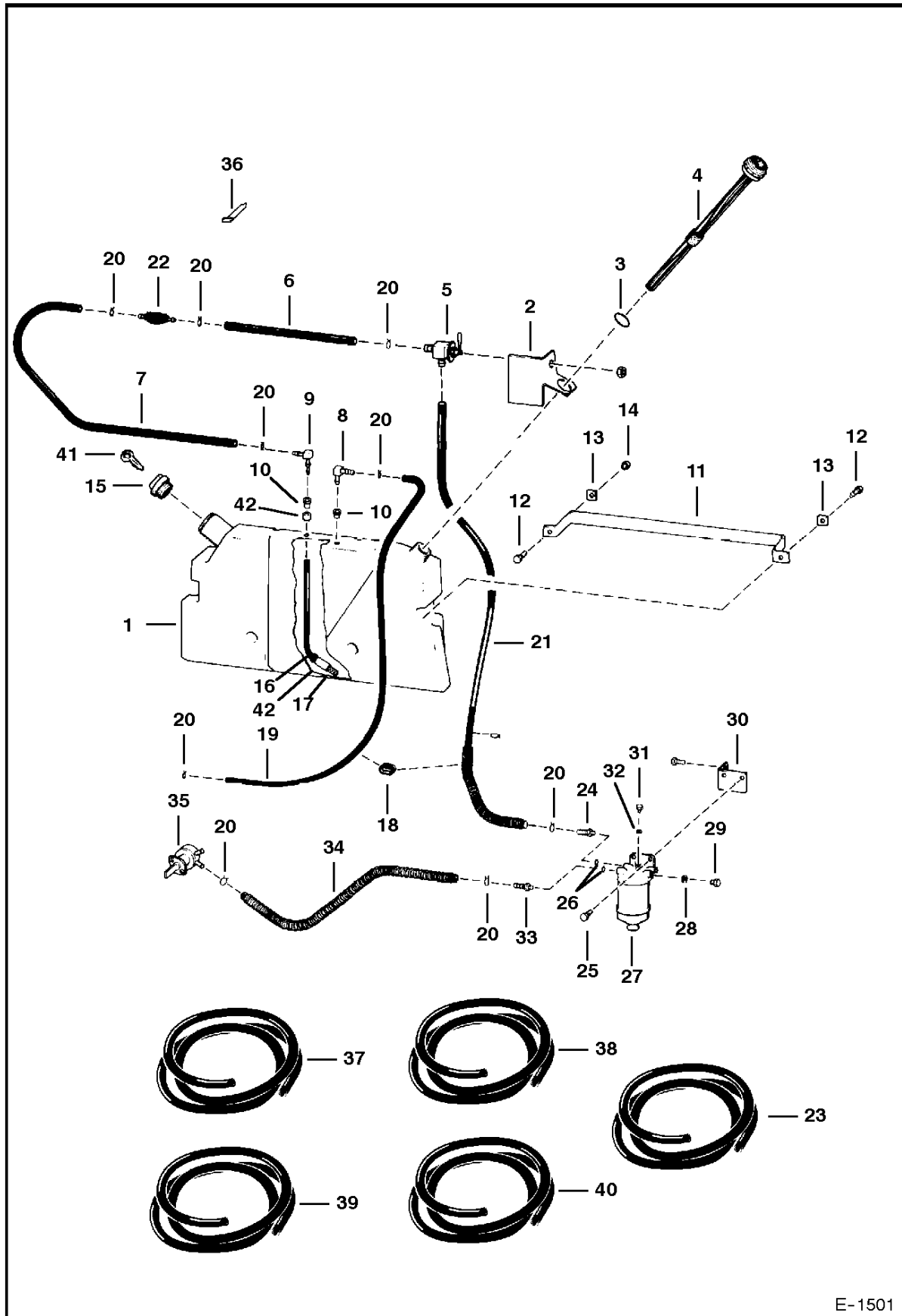


C-2803

BOB-TACH

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6529478	BOB-TACHinD1}#			1
2	NAP	FRAME			1
3	38C-810	BOLT			3
4	25E-21	WASHER			1
5	6529720	LEVER			1
6	6529716	LINK	wedge		2
7	NAP	BELLCRANK	Use With 6529719 Link - Order 6531832 & 6531833		1
7	6531832	BELLCRANK	Use With 6531833 Link		1
8	85D-6	NUT			3
9	17C-632	BOLT			1
10	6563909	WEDGE			2
11	NAP	LINK	11.40" (290 mm) - Order 6531832 & 6531833		1
11	6531833	LINK	11.20" (284 mm)		1
12	6565156	SPRING			2
13	6529721	SEAL			1
14	6529718	RETAINER	spring		2
15	6562026	INSERT			4
16	12H-15	GREASE ZERK			2
17	6565192	COVER			1
18	84G-3712	BOLT			1
19	215842	PLUG			2
20	6565160	BUSHING	weld on		2
21	1990599	SEAL			2
22	35C-616	BOLT			1
23	6636022	SPACER			6
24	6563830	BUSHING	weld on		2
25	25E-18	WASHER			1
26	35C-612	BOLT			6

FUEL SYSTEM
(5618 11001 - & 5619 11001 -)

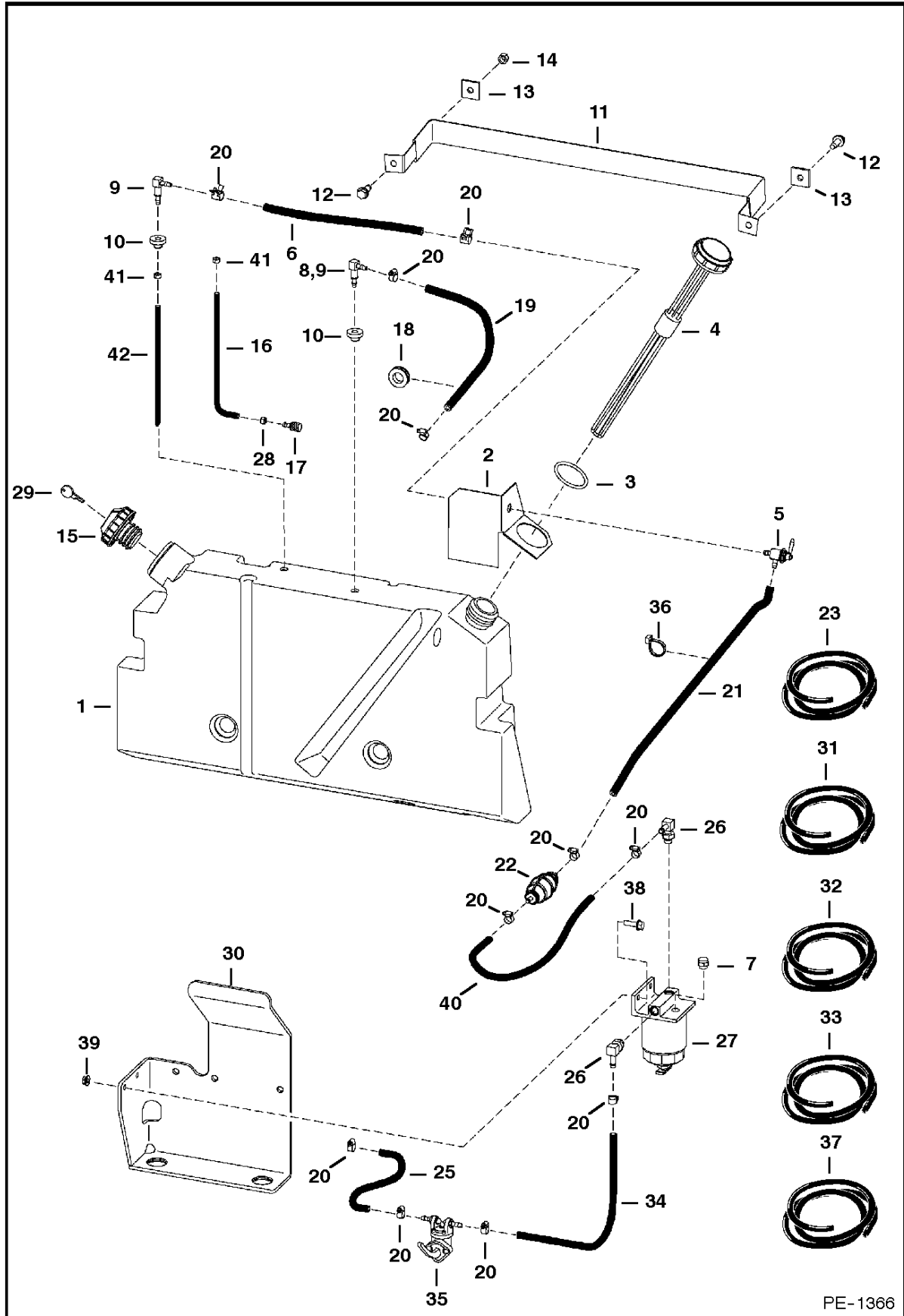


E-1501

FUEL SYSTEM

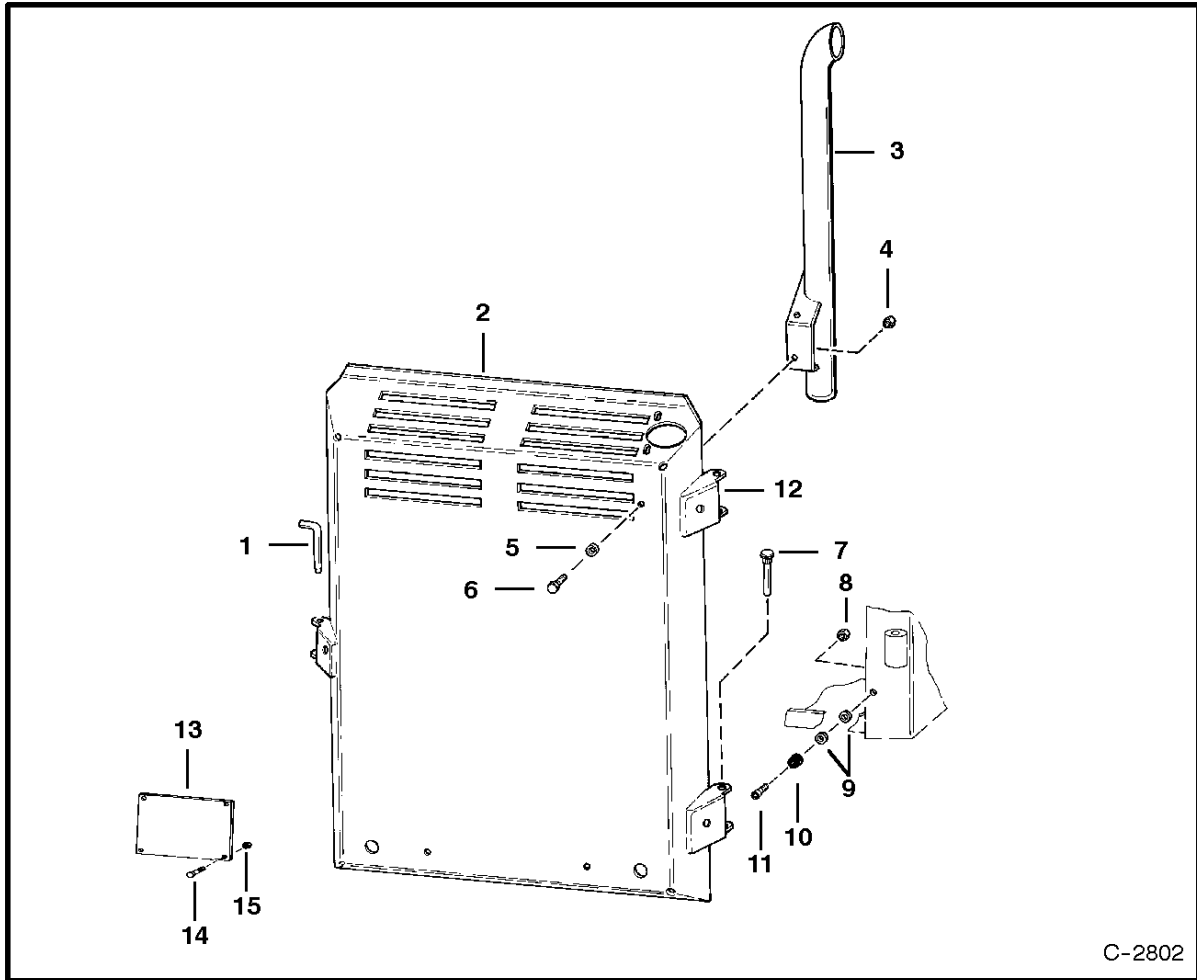
Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6708327	TANK			1
2	6564038	MOUNT			1
3	25K-60204	O-RING			1
4	6598910	GAUGE			1
5	6599455	VALVE	shut-off		2
6	NAP	HOSE	17" (432 mm) - Order Ref.FUEL SYSTEM(37)		1
7	NAP	HOSE	15" (381 mm) - Order Ref. FUEL SYSTEM(37)		1
8	6630041	ELBOW			1
9	6598908	ELBOW			1
10	6553411	BUSHING			2
11	6564037	BAND			1
12	84G-3716	BOLT			2
13	6559447	WASHER			2
14	61D-6	NUT			1
15	6661114	CAP	Green		1
15	6654373	CAP	locking - W/Ref. FUEL SYSTEM(40)		1
16	NAP	HOSE	14.75' (375 mm) - Order 2 of 6569752		1
17	6650239	SCREEN			1
18	1023368	GROMMET			1
19	NAP	HOSE	36" (914 mm) - Order Ref.FUEL SYSTEM(39)		1
20	6515575	CLAMP			2
21	NAP	HOSE	42" (1067 mm) - Order Ref. FUEL SYSTEM(38)		1
22	6657734	PUMP	hand primer		1
23	6563505	CONDUIT	bulk 5/8" (15,8 mm) I.D. - Sold Per Foot - Order Feet Required		x
24	6560355	ADAPTER			1
25	84G-3716	BOLT			4
26	79K-5	O-RING			2
27		FILTER	See Page FUEL FILTER(1)		1
28	6515466	WASHER	sealing		2
29	6515682	PLUG			2
30	6593309	MOUNT			1
31	6515676	PLUG			1
32	6515468	WASHER	sealing		1
33	1324240	ADAPTER			1
34	NAP	HOSE	14" (356 mm) - Order Ref. FUEL SYSTEM(37)		1
35	6666850	FUEL PUMPInD1}	See Page FUEL & INJECTION PUMP(1)		1
36	6624289	STA-STRAP			1
37	6577821	HOSE	bulk - Sold Per Foot - Order Feet Required		x
38	6577822	HOSE	bulk - Sold Per Foot - Order Feet Required		x
39	6578169	HOSE	bulk - Sold Per Foot - Order Feet Required		x
40	6565434	CONDUIT	bulk 1/2" (12,7 mm) I.D. - Sold Per Foot - Order Feet Required		x
41	6654374	KEY			1
42	6661213	CLAMP			2

FUEL SYSTEM
 (S/N 5150 11001 & Above & 5151 11001 & Above)



FUEL SYSTEM

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6708327	TANK			1
2	6564038	MOUNT			1
3	25K-60204	O-RING			1
4	6598910	GAUGE			1
5	6599455	VALVE	shut-off		2
6	NAP	HOSE	13.00' (325 mm) - Order Ref. FUEL SYSTEM(37)		1
7	6658180	PLUG	breather		1
8	6630041	ELBOW		& Bel	1
9	6598908	ELBOW		& Bel	1
9	6598908	ELBOW		& Abv	2
10	6553411	BUSHING			2
11	6564037	BAND			1
11	6728472	INSULATION			1
12	84G-3716	BOLT			2
13	6559447	WASHER			2
14	61D-6	NUT			1
15	6661114	CAP	Green		1
15	6661696	FUEL CAP	locking - W/Ref. FUEL SYSTEM(29) - Was 6654373 [A]		1
16	NAP	HOSE	'14.75'(375mm) - Order (2) 6569752		1
17	6650239	SCREEN		& Bel	1
18	1023368	GROMMET			1
19	NAP	HOSE	Order Ref. FUEL SYSTEM(37)		1
20	6515575	CLAMP	worm gear		11
20	5HM-13	CLAMP	constant tension		11
21	NAP	HOSE	Order Ref. FUEL SYSTEM(37)		1
22	6657734	PUMP	hand primer		1
23	6563505	CONDUIT	bulk (5/8" I.D.) - Sold Per Foot		x
24	79K-5	O-RING	flat boss face		2
24	99K-5	O-RING	tapered boss face		2
25	NAP	HOSE	Order Ref. FUEL SYSTEM(37)		x
26	6657083	ELBOW	w/ 79K-5 - flat boss face		2
26	6715183	ELBOW	w/ 99K-5 - tapered boss face		2
27	6667353	FILTER ASSY	See Page FUEL FILTER(1)		1
27	6667352	FILTER			1
27	72F-1	DRAIN COCK			1
28	6661213	CLAMP		& Bel	2
29	6654374	KEY			1
30	6713672	MOUNT	Engine		1
31	6565434	CONDUIT	bulk (1/2" I.D.) - Sold Per Foot		x
32	6578169	HOSE	bulk - Sold Per Foot		x
33	6577822	HOSE	bulk - Sold Per Foot		x
34	NAP	HOSE	14" (356 mm) - Order Ref. FUEL SYSTEM(37)		1
35		FUEL PUMP in D1}	See Page FUEL & INJECTION PUMP(1)		1
36	6624289	STA-STRAP			1
37	6577821	HOSE	bulk - Sold Per Foot		x
38	35C-516	BOLT			2
39	57D-5	NUT			2
40	NAP	HOSE	Order Ref. FUEL SYSTEM(37)		1
41	6661213	CLAMP		& Bel	2
42	6729855	HOSE	15.125' (384,2mm) long	& Abv	1

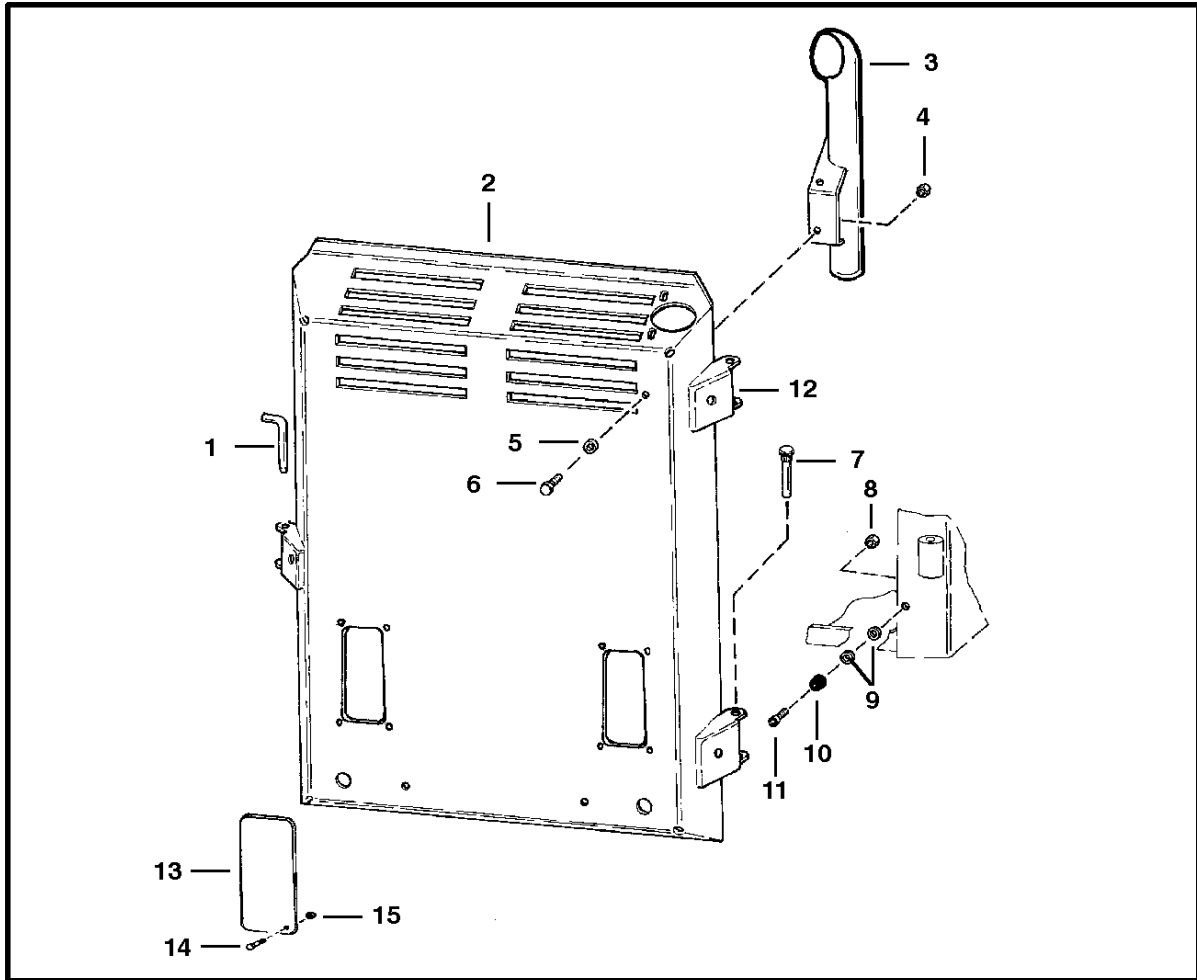


REAR DOOR
(5618 11001-, 5619 11001-)

Ref. Part	No. Number	Description	Remarks	Serial Number	Qty.
------------------	-------------------	--------------------	----------------	----------------------	-------------

REAR DOOR

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6564192	PIN			1
2	6707894	DOORinD1},			1
3	6565813	EXHAUST PIPEinD1 }/	long		1
3	6712642	EXHAUST PIPE	short		1
4	61D-6	NUT			3
5	25E-17	WASHER			3
6	17C-612	BOLT			3
7	6564340	PIN			2
8	83D-5	NUT			2
9	25E-16	WASHER			4
10	6655399	BUMPER	Was 6511847 [A]		2
11	73G-516	BOLT			2
12	6562225	HINGE			3
13	6707884	COVER			2
14	25G-514	BOLT			8
15	83D-5	NUT			8

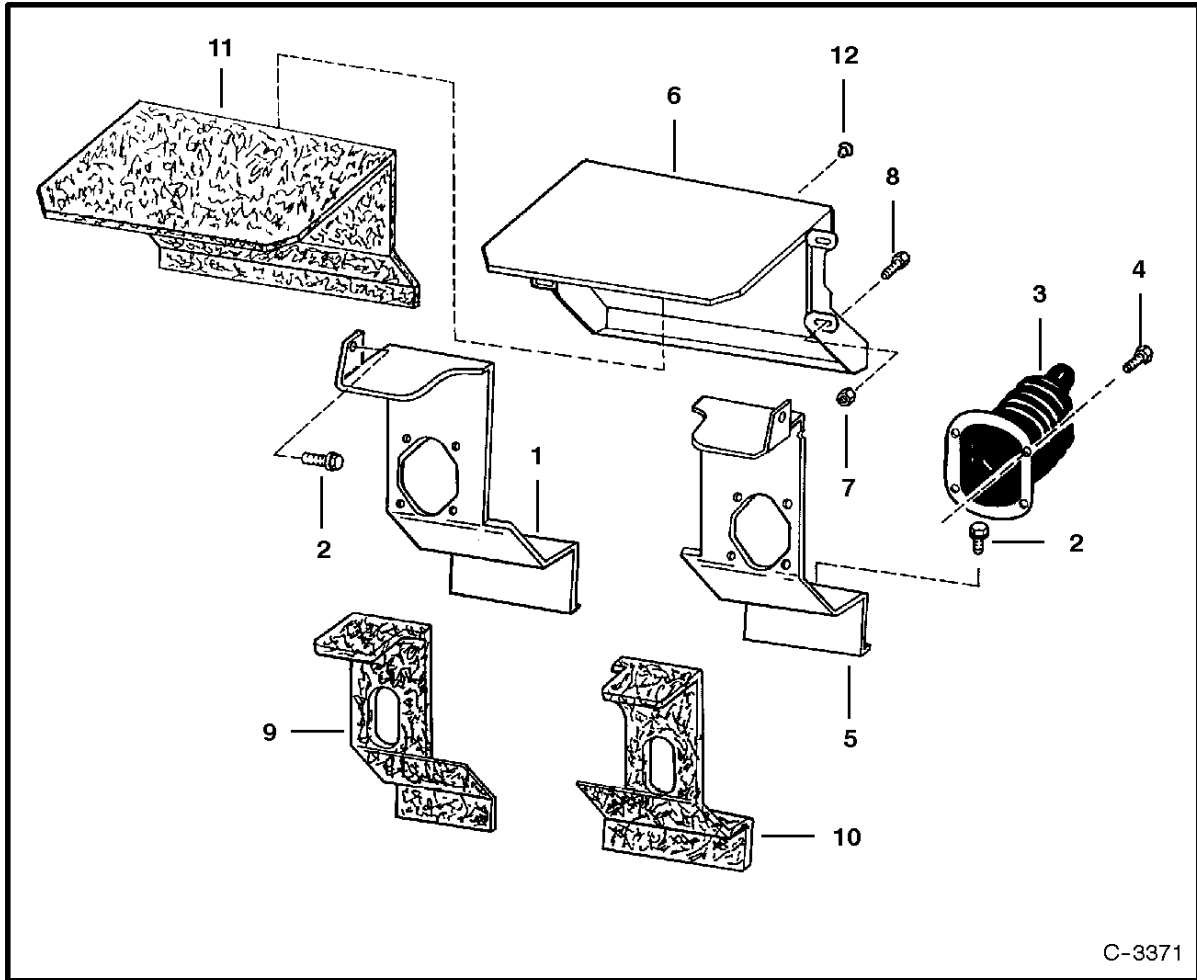


REAR DOOR
 (5150 11001 & Above, 5151 11001 & Above)

Ref. Part No.	Part Number	Description	Remarks	Serial Number	Qty.
---------------	-------------	-------------	---------	---------------	------

REAR DOOR

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6564192	PIN			1
2	6713975	DOOR			1
3	6712642	EXHAUST PIPE	short		1
4	61D-6	NUT			3
5	25E-17	WASHER			3
6	17C-612	BOLT			3
7	6564340	PIN			2
8	83D-5	NUT			2
9	25E-16	WASHER			4
10	6655399	BUMPER	Was 6511847 [A]		2
11	73G-516	BOLT			2
12	6562225	HINGE			3
13	6714004	COVER			2
14	25G-514	BOLT			8
15	83D-5	NUT			8



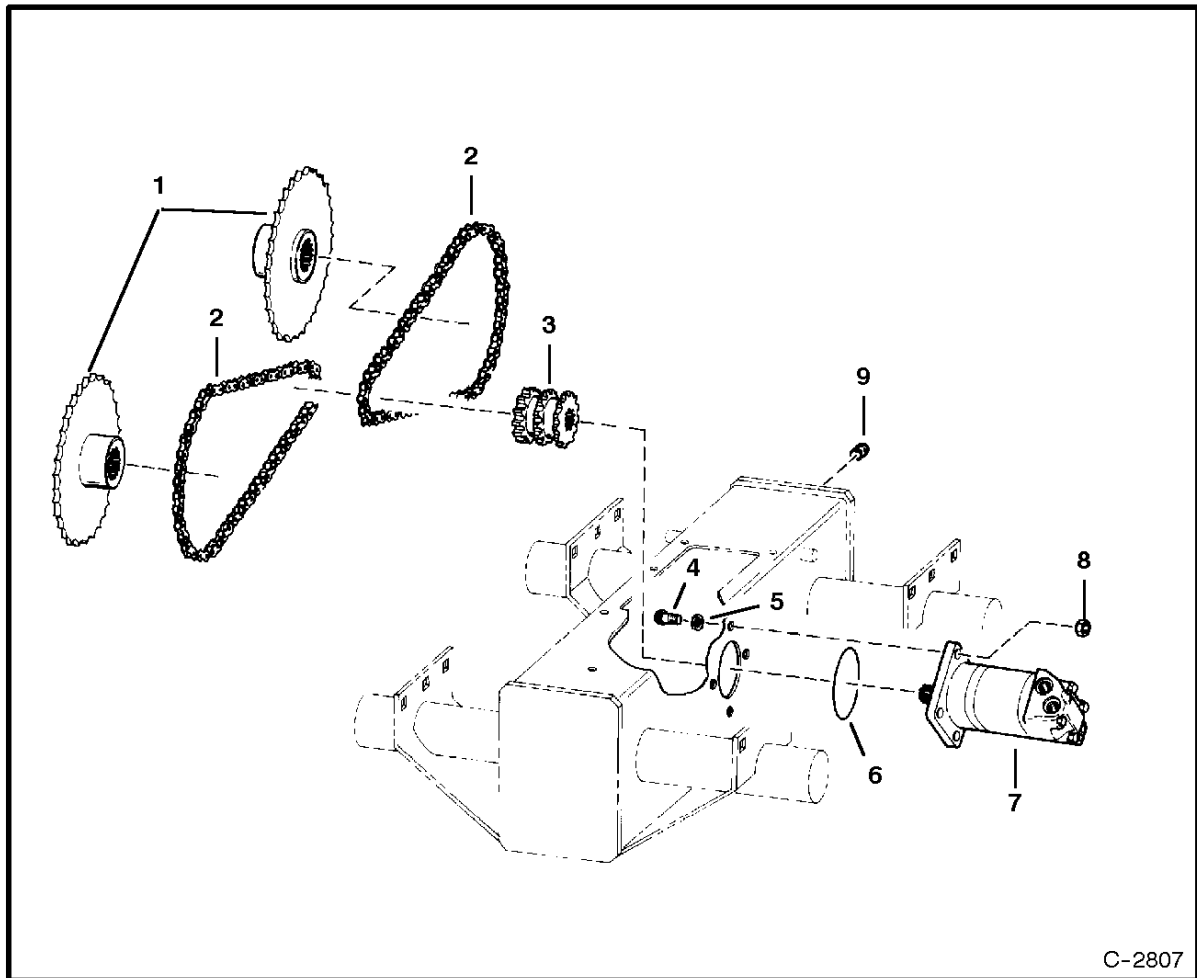
C-3371

PANELS

Ref. Part No.	Part Number	Description	Remarks	Serial Number	Qty.
---------------	-------------	-------------	---------	---------------	------

PANELS

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6707384	SHIELD			1
2	84G-3712	BOLT			4
3	6532127	BOOT	optional		2
4	6630207	RIVET			8
5	6707383	SHIELD			1
6	6707389	SHIELD			1
7	85D-6	NUT			4
8	35C-616	BOLT			4
9	6708485	INSULATION			1
10	6708484	INSULATION			1
11	6708483	INSULATION			1
12	6598805	PLUG	European		1



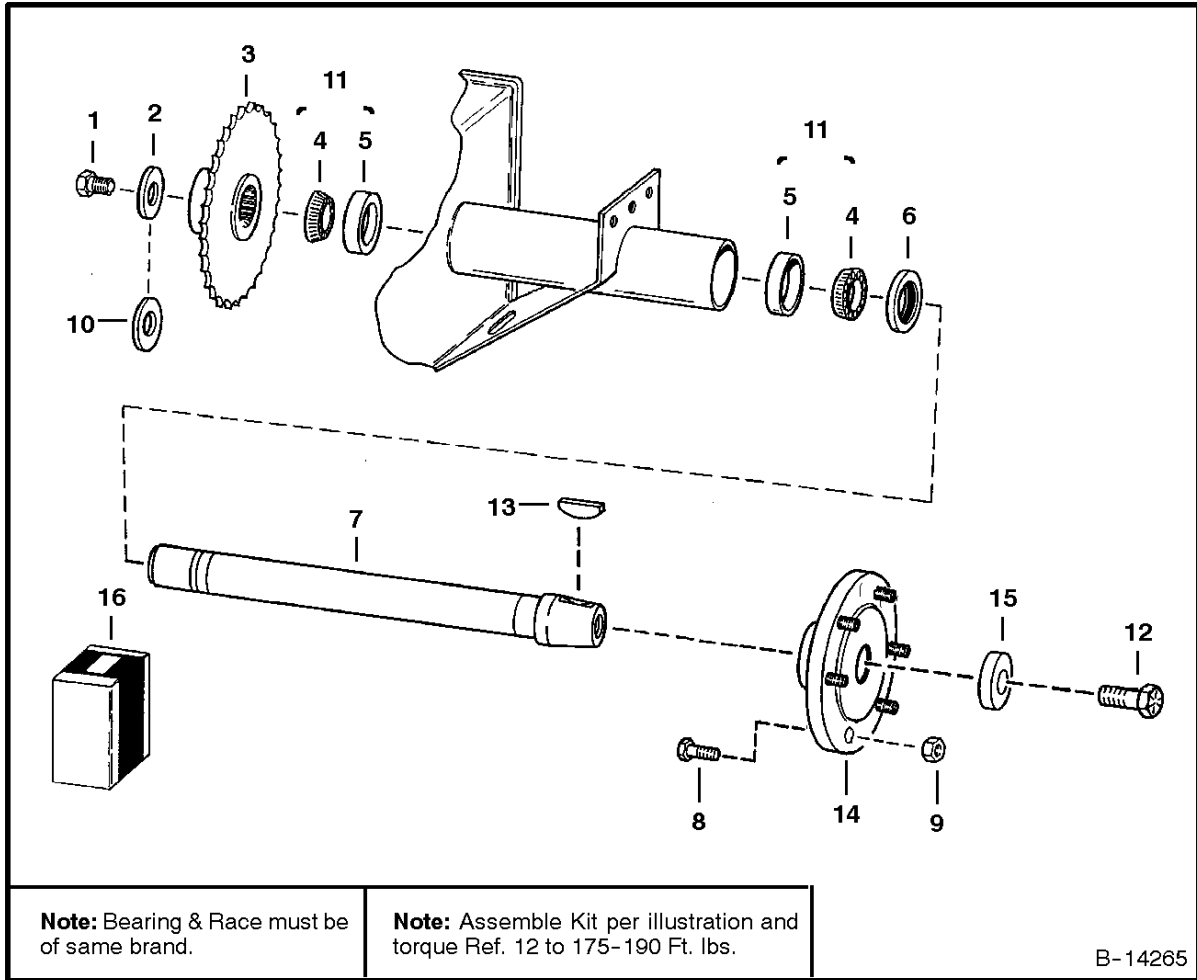
C-2807

DRIVE TRAIN

Ref. Part No.	Part Number	Description	Remarks	Serial Number	Qty.
---------------	-------------	-------------	---------	---------------	------

DRIVE TRAIN

Ref.N°	Part N°	Description	Remarks	Serial N°	Qty.
1	6563798	SPROCKET			4
2	6565551	CHAIN			4
2	6515191	LINK	conn.		4
3	6708239	SPROCKET			2
4	6564741	BOLT			8
5	6564740	WASHER			8
6	25K-40400	O-RING			2
7		MOTOR	hydro. - See Page HYDROSTATIC MOTOR(3)		2
8	86D-8	NUT	Was 64D-8 [B]		8
9	11F-12	PLUG			1



AXLE

Ref. Part No. Number	Description	Remarks	Serial Number	Qty.
----------------------	-------------	---------	---------------	------

**Thank you very much
for your reading.**

**Please click here and go
back to our website.**

**Then, you can download
the complete manual
instantly.**

No waiting.

Have questions.

Please write to me.

**All the problems will be answered
within 12 hours.**

aservicemanuapdf@yahoo.com