

Product: 2009 Kubota WSM M126XDTPC(SUPPLEMENT) Tractor Service Repair Workshop Manual
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WSM

WORKSHOP MANUAL TRACTOR

M126XDTPC (SUPPLEMENT)

Kubota

Sample of manual. Download All 77 pages at:

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TO THE READER

In this section, the main additional function and altered position of M126XDTPC tractor from M126X tractor.

As for the items which are not explained in this section, refer to M100X, M110X, M126X and M135X workshop manual (9Y021-02691).

This Workshop Manual tells the servicing personnel about the mechanism, servicing and maintenance of the M126XDTPC. It contains 4 parts: "**Information**", "**General**", "**Mechanism**" and "**Servicing**".

■ **Information**

This section contains information below.

- Safety First
- Safety Decal
- Specification
- Dimension

■ **General**

This section contains information below.

- Maintenance Check List
- Check and Maintenance
- Special Tools

■ **Mechanism**

This section contains information on the structure and the function of the unit. Before you continue with the subsequent sections, make sure that you read this section.

Refer to the latest version of Workshop Manual (Code No. 9Y021-01870 / 9Y021-18200) for the diesel engine / tractor mechanism that this workshop manual does not include.

■ **Servicing**

This section contains information below.

- Troubleshooting
- Servicing Specifications
- Tightening Torques
- Checking, Disassembling and Servicing

All illustrations, photographs and specifications contained in this manual are of the newest information available at the time of publication.

KUBOTA reserves the right to change all information at any time without notice.

Since this manual includes many models, information or illustrations and photographs can show more than one model.

PI INFORMATION

INFORMATION

CONTENTS

- 1. SAFETY FIRSTPI-1
- 2. SAFETY DECALSPI-4
- 3. SPECIFICATIONSPI-10
- 4. TRAVELING SPEEDSPI-11
- 5. DIMENSIONSPI-13

1. SAFETY FIRST

SAFETY FIRST

- This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully.
- It is essential that you read the instructions and safety regulations before you attempt to repair or use this unit.

DANGER

- Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

- Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

- Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

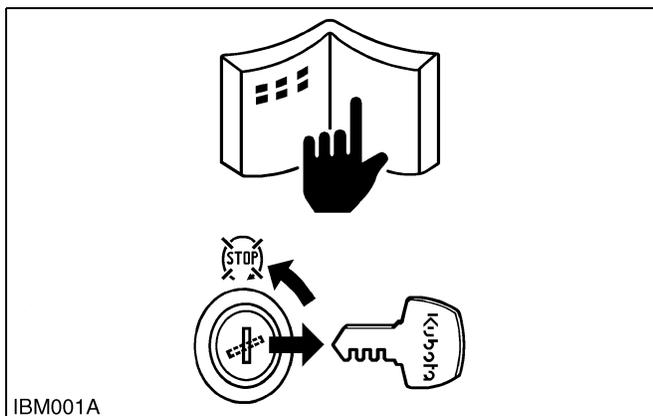
■ IMPORTANT

- Indicates that equipment or property damage could result if instructions are not followed.

■ NOTE

- Gives helpful information.

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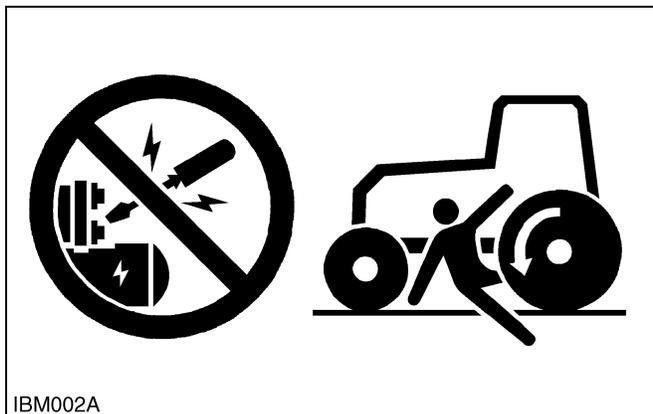


IBM001A

BEFORE YOU START SERVICE

- Read all instructions and safety instructions in this manual and on your machine safety decals.
- Clean the work area and machine.
- Park the machine on a stable and level ground, and set the parking brake.
- Lower the implement to the ground.
- Stop the engine, then remove the key.
- Disconnect the battery negative cable.
- Hang a "DO NOT OPERATE" tag in the operator station.

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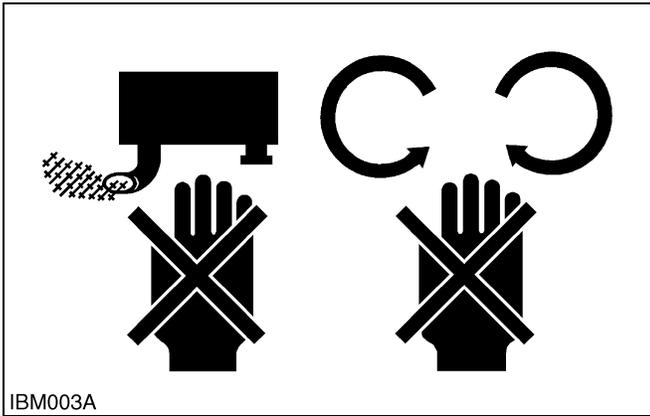


IBM002A

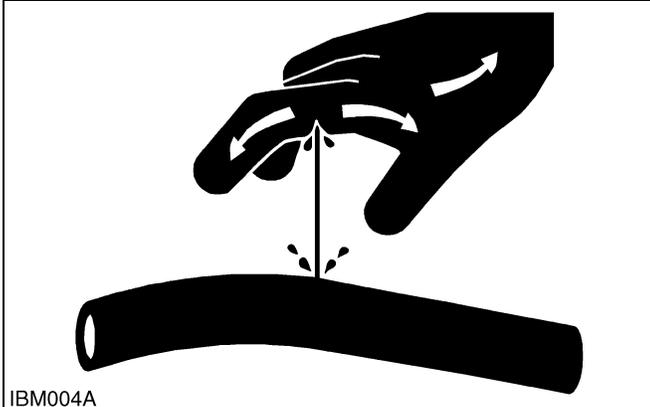
START SAFELY

- Do not do the procedures below when you start the engine.
 - short across starter terminals
 - bypass the safety start switch
- Do not alter or remove any part of machine safety system.
- Before you start the engine, make sure that all shift levers are in neutral positions or in disengaged positions.
- Do not start the engine when you stay on the ground. Start the engine only from operator's seat.

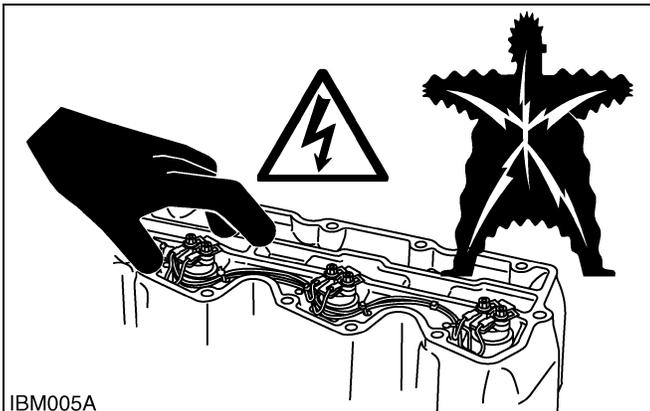
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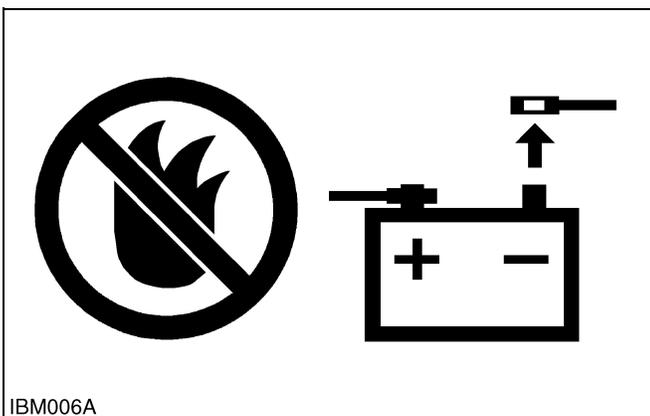
IBM003A



IBM004A



IBM005A



IBM006A

OPERATE SAFELY

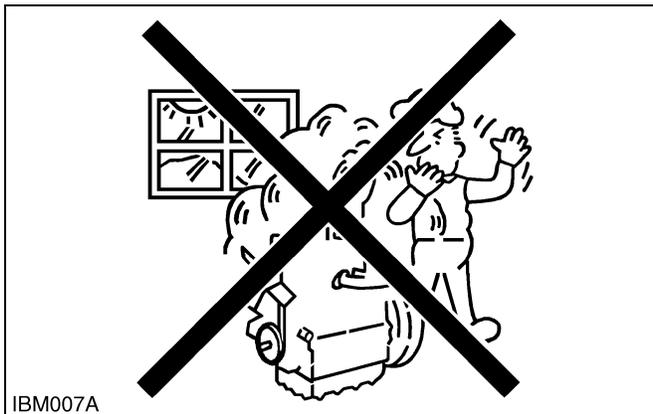
- Do not use the machine after you consume alcohol or medication or when you are tired.
- Put on applicable clothing and safety equipment.
- Use applicable tools only. Do not use alternative tools or parts.
- When 2 or more persons do servicing, make sure that you do it safely.
- Do not operate below the machine that only a jack holds. Always use a safety stand to hold the machine.
- Do not touch the hot parts or parts that turn when the engine operates.
- Do not remove the radiator cap when the engine operates, or immediately after it stops. If not, hot water can spout out from the radiator. Only remove the radiator cap when it is at a sufficiently low temperature to touch with bare hands. Slowly loosen the cap to release the pressure before you remove it fully.
- Released fluid (fuel or hydraulic oil) under pressure can cause damage to the skin and cause serious injury. Release the pressure before you disconnect hydraulic or fuel lines. Tighten all connections before you apply the pressure.
- Do not open a fuel system under high pressure. The fluid under high pressure that stays in fuel lines can cause serious injury. Do not disconnect or repair the fuel lines, sensors, or any other components between the fuel pump and injectors on engines with a common rail fuel system under high pressure.
- Put on an applicable ear protective device (earmuffs or earplugs) to prevent injury against loud noises.
- Be careful about electric shock. The engine generates a high voltage of more than DC100 V in the ECU and is applied to the injector.

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PREVENT A FIRE

- Fuel is very flammable and explosive under some conditions. Do not smoke or let flames or sparks in your work area.
- To prevent sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.
- The battery gas can cause an explosion. Keep the sparks and open flame away from the top of battery, especially when you charge the battery.
- Make sure that you do not spill fuel on the engine.

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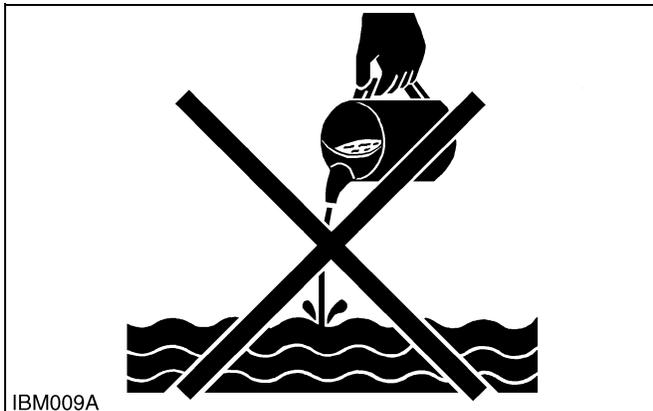


IBM007A

KEEP A GOOD AIRFLOW IN THE WORK AREA

- If the engine is in operation, make sure that the area has good airflow. Do not operate the engine in a closed area. The exhaust gas contains poisonous carbon monoxide.

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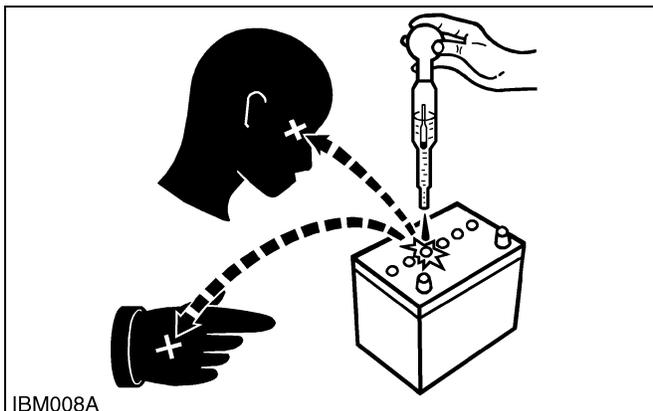


IBM009A

DISCARD FLUIDS CORRECTLY

- Do not discard fluids on the ground, down the drain, into a stream, pond, or lake. Obey related environmental protection regulations when you discard oil, fuel, coolant, electrolyte and other dangerous waste.

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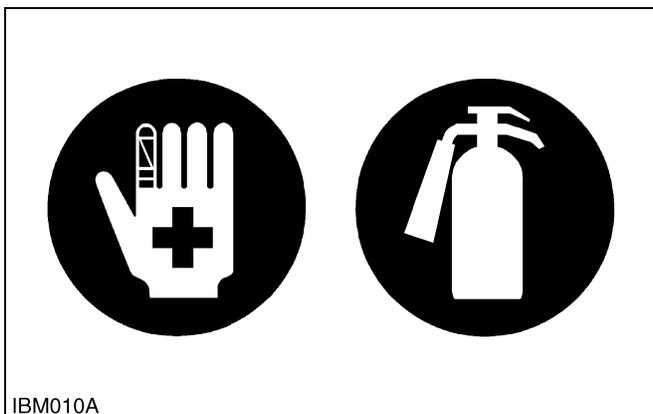


IBM008A

PREVENT ACID BURNS

- Keep electrolyte away from your eyes, hands and clothing. Sulfuric acid in battery electrolyte is poisonous and it can burn your skin and clothing and cause blindness. If you spill electrolyte on yourself, clean yourself with water, and get medical aid immediately.

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IBM010A

PREPARE FOR EMERGENCIES

- Keep a first aid kit and fire extinguisher ready at all times.
- Keep the emergency contact telephone numbers near your telephone at all times.

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2. SAFETY DECALS

The following safety decals (pictorial safety labels) are installed on the machine. If a decal becomes damaged, illegible or is not on the machine, replace it. The decal part number is listed in the parts list.

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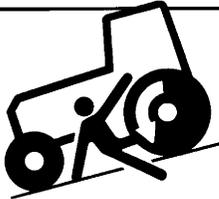
(1) Part No. 3F240-9857-1

WARNING

To avoid free wheeling when shifting the shuttle lever while on a slope: Stop completely by using the brake and by depressing the clutch pedal. Start off after selecting shuttle direction by releasing the clutch pedal.

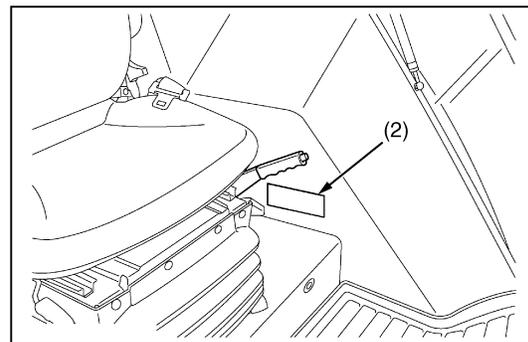
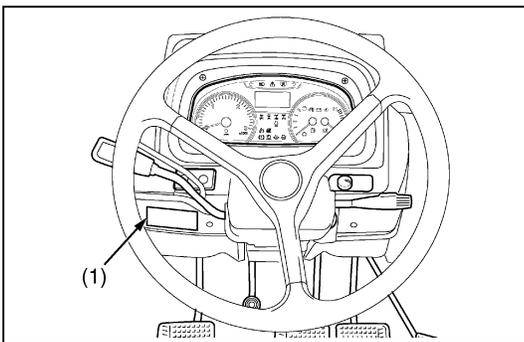
(2) Part No. TA240-4933-2

WARNING



BEFORE DISMOUNTING TRACTOR:

- 1. ALWAYS SET PARKING BRAKE.**
Leaving transmission in gear with the engine stopped will not prevent tractor from rolling.
- 2. PARK ON LEVEL GROUND WHENEVER POSSIBLE.**
If parking on a slope, position tractor across the slope.
- 3. LOWER ALL IMPLEMENTS TO THE GROUND.**
- 4. STOP THE ENGINE.**



9Y1210269ICI001A

9Y1210269INI0003US0

(1) Part No. TA040-4965-2



⚠ DANGER

TO AVOID POSSIBLE INJURY OR DEATH FROM A MACHINE RUNAWAY.

1. Do not start engine by shorting across starter terminals or bypassing the safety start switch. Machine may start in gear and move if normal starting circuitry is bypassed.
2. Start engine only from operator's seat with transmission and PTO OFF. Never start engine while standing on the ground.

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(2) Part No. TA040-4957-1

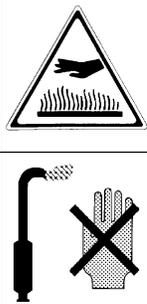
Do not get your hands close to engine fan and fan belt.



1AGAIAZAP110A

(3) Part No. 3N300-4958-1

Do not touch hot surface like muffler, etc..



1AGAIAZAP071A

(4) Part No. 3T495-9852-1

Do not step on the crawler track when getting on and off the tractor.

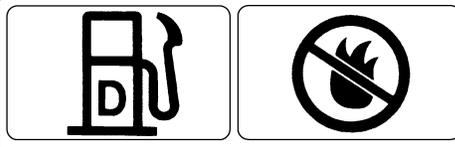


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(5) Part No. TC230-4956-1

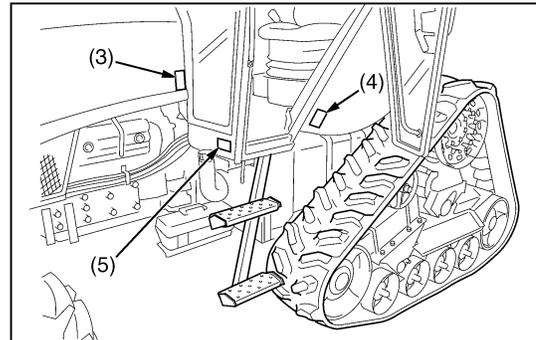
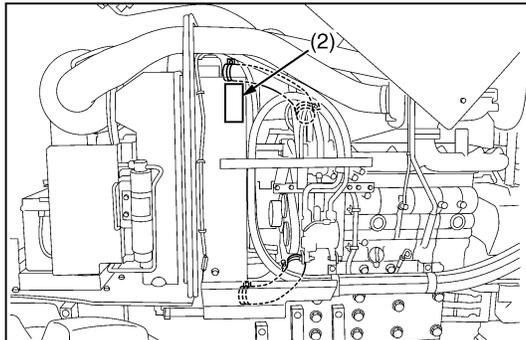
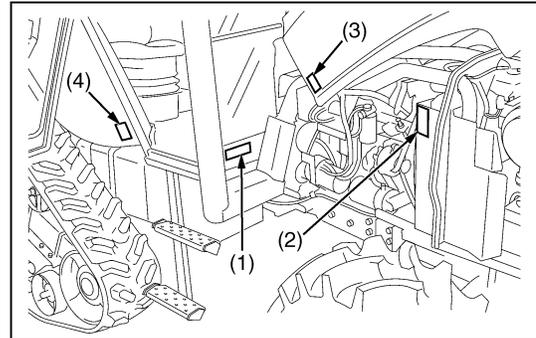
Diesel fuel only

No fire



LOW SULFUR FUEL OR ULTRA LOW SULFUR FUEL ONLY

1AGAPAJAP068A



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9Y1210363INI0001US0

(1) Part No. 3F240-9819-1

Do not stand by IMPLEMENT or between implement and tractor while operating remote hitch switch.



1AGAIBIAP1770

(3) Part No. 6C200-4959-1

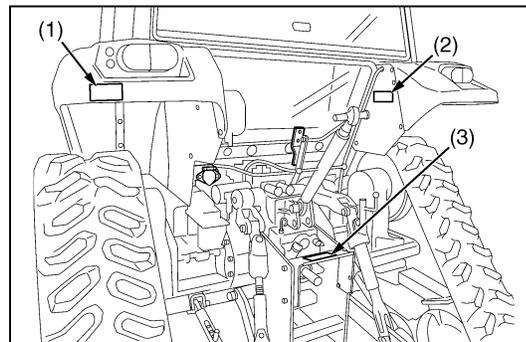
⚠ WARNING	TO AVOID PERSONAL INJURY: 1. Attach pulled or towed loads to the drawbar only. 2. Use the 3-point hitch only with equipment designed for 3-point hitch usage.
	⚠ WARNING TO AVOID PERSONAL INJURY: 1. Keep PTO shield in place at all times. 2. Do not operate the PTO at speeds faster than the speed recommended by the implement manufacturer. 3. For trailing PTO-driven implements, set drawbar at towing position. (see operator's manual)

1AGAIHFAP067A

(2) Part No. 3A111-9856-3

⚠ CAUTION	
TO AVOID INJURY FROM SEPARATION :	
<p>GROOVE</p>	<p>THREAD EXPOSURE AREA</p>
<p>LH. DO NOT EXTEND LIFT ROD BEYOND THE GROOVE ON THE THREADED ROD.</p>	<p>RH. DO NOT EXTEND LIFT ROD BEYOND THE POINT WHERE THREADS ARE EXPOSED.</p>

1AGAIAZAP119A



(1) Part No. 3F240-9836-2

CAUTION

TO AVOID PERSONAL INJURY:

1. Read and understand the operator's manual before operation.
2. Before starting the engine, make sure that everyone is at a safe distance from tractor and the PTO is off.
3. Do not allow passengers on the tractor at any time.
4. Before allowing other people to use the tractor, have them read the operator's manual.
5. Check the tightness of nuts and bolts regularly.
6. Keep all shields in place and stay away from all moving parts.
7. Lock the two brake pedals together before driving on the road.
8. Slow down for turns, or rough roads, or when applying individual brakes.
9. On public roads use SMV emblem and hazard lights, if required by local traffic and safety regulations.
10. Pull only from the drawbar.
11. Before dismounting, lower the implement to the ground, set the parking brake, stop the engine and remove the key.
12. Securely support tractor and implements before working underneath.

(2) Part No. TA040-4902-1

WARNING



TO AVOID INJURY OR DEATH FROM ROLL-OVER.
Always use seat belt when driving.

(3) Part No. 3F240-9821-1

WARNING

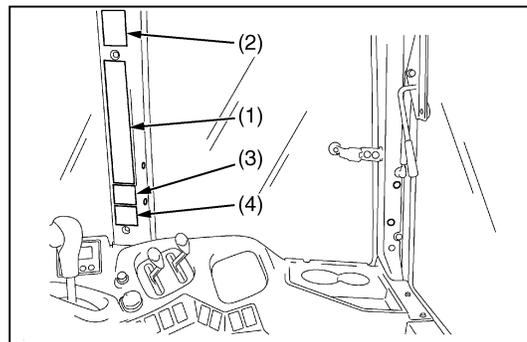
TO AVOID MACHINE RUNAWAY DUE TO 4WD BRAKING SYSTEM:
Do not run engine with only rear wheels off ground.

(4) Part No. 6C300-4744-1

WARNING

Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

1AGAIHFAP069A



9Y1210269ICI004A

9Y1210269INI0006US0

- (1) Part No. 3N600-4958-1
Do not touch hot surface like supply pump, etc..



1AGAIDXAP073A

- (3) Part No. 3P903-9892-2

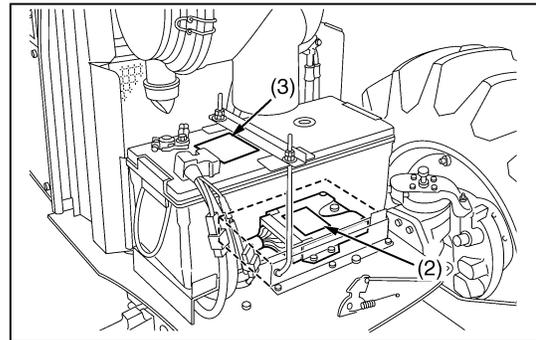
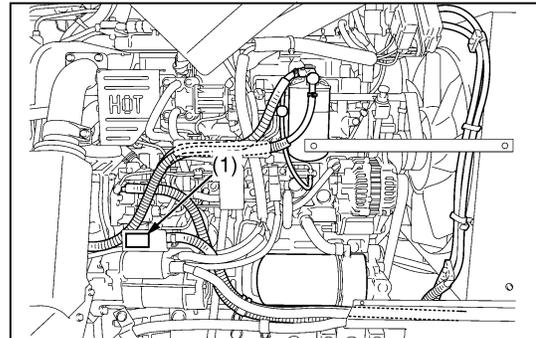
<p>! DANGER/POISON</p>			<p>KEEP OUT OF REACH OF CHILDREN. DO NOT TIP. DO NOT OPEN BATTERY.</p>		
<p>SHIELD EYES. EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY.</p>	<p>NO SPARKS, FLAMES OR SMOKING</p>	<p>SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS.</p>	<p>FLUSH EYES IMMEDIATELY WITH WATER. GET MEDICAL HELP FAST.</p>		
<p>PROPOSITION 65 WARNING</p> <p>BATTERY POSTS, TERMINALS, AND RELATED ACCESSORIES CONTAIN LEAD AND LEAD COMPOUNDS, CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND REPRODUCTIVE HARM. WASH HANDS AFTER HANDLING.</p>					
	<p>180G51 (4D-1050)</p> <p>RESERVE CAPACITY (MIN) 300</p> <p>COLD CRANKING AMPS(-18°C)1090</p>	<p>12V</p>	<p>S.O.C. INDICATOR</p> <p>OK CHARGE BATTERY REPLACE BATTERY</p> <p>DK 83549</p>		

1AGAIFYAP095A

- (2) Part No. 1J574-5905-3

	<p>! 警告</p> <p>感電の恐れあり。コンピュータ、コネクタの点検・修理時は、キースイッチを「OFF」位置にしてください。</p>
	<p>! WARNING</p> <p>Hazardous high voltage. Turn the starter switch to the OFF position if it is necessary to check or repair the computer, harness, or connectors.</p>

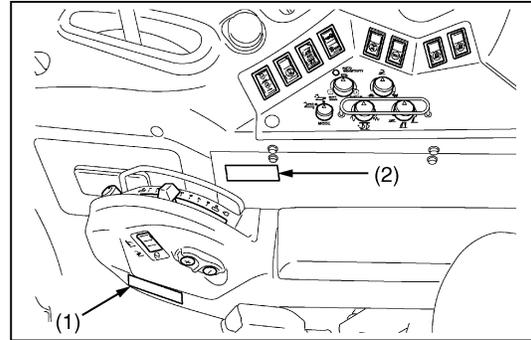
1AGAIHFAP064A



(1) Part No. 3F240-4966-1



(2) Part No. 3F240-4905-2

**CARE OF DANGER, WARNING AND CAUTION LABELS**

1. Keep danger, warning and caution labels clean and free from obstructing material.
2. Clean danger, warning and caution labels with soap and water, dry with a soft cloth.
3. Replace damaged or missing danger, warning and caution labels with new labels.
4. If a component with danger, warning or caution label (s) affixed is replaced with new part, make sure new label (s) is (are) attached in the same location (s) as the replaced component.
5. Mount new danger, warning and caution labels by applying on a clean dry surface and pressing any bubbles to outside edge.

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3. SPECIFICATIONS

Model		M126XDTPC	
		4WD	
Engine	Model	V6108-TIE3	
	Type	Direct injection, with turbocharger, water-cooled 4-cycle diesel	
	Number of cylinder	4	
	Total displacement	6124 cm ³ (374 cu.in.)	
	Bore and stroke	118 × 140 mm (4.65 × 5.51 in.)	
	Net power*	93.2 kW (125 HP)*	
	PTO power (factory observe)*	80.6 kW (108 HP)* / 2200 min ⁻¹ (rpm)	
	Battery capacity	12 V, 160 Ah at 20 hours, 1090 CCA	
	Fuel tank capacity	190 L (50.2 U.S.gal, 41.8 Imp.gals)	
	Engine oil capacity	14.6 L (15.4 U.S.qts, 12.8 Imp.qts)	
	Coolant capacity	15.0 L (15.9 U.S.qts, 13.2 Imp.qts)	
Dimensions	Overall length (with 3-point hitch)		4370 mm (172.0 in.)
	Overall width		2180 mm (85.83 in.)
	Overall height		2700 mm (106.3 in.)
	Tread	Front	1770 mm (69.68 in.)
		Rear	1780 mm (70.08 in.)
Crop clearance		435 mm (17.1 in.)	
Weight		5200 kg (11464 lbs)	
Traveling system	Front tire		14.9R24
	Rear crawler track width		400 mm (15.7 in.)
	Clutch		Multiple wet disc, Electronic Hydraulically operated
	Steering		Hydrostatic power steering
	Braking system		Hydraulically operated wet disk
	Differential		Bevel gears with differential gear lock (Front, Rear)
Hydraulic unit	Hydraulic control system		Electronic draft control
	Pump capacity		77.2 L (20.4 U.S.gals, 17.0 Imp.gals) / min.
	Three point hitch		SAE Category 2
	Max. lifting force	At lifting points	2635 kg (5809 lbs) at lower link end with links horizontal
		24 in. behind lifting points**	2360 kg (5203 lbs)
	Remote hydraulic control		Two remote valves with detent and self-canceling
	System pressure		19.7 MPa (201 kg/cm ² , 2857 psi)
Traction system		Swinging drawbar, adjustable in direction	
PTO system	Live PTO (Independent)	Direction of turning	Clockwise, viewed from tractor rear
		PTO/Engine speed	6 splines : 540 min ⁻¹ / 1994 min ⁻¹ 21 splines : 1000 min ⁻¹ / 2050 min ⁻¹

■ **NOTE**

- *Manufacture's estimate

** Top link mounting : upper hole.

The company reserves the right to change the specifications without notice.

9Y1210363INI0002US0

4. TRAVELING SPEEDS

■ Forward

Model			M126XDTPC	
Shuttle shift lever	Range gear shift lever	Main gear shift lever	km/h	mph
Forward	CREEP (option)	1	0.37	0.22
		2	0.46	0.29
		3	0.58	0.36
		4	0.64	0.40
		5	0.89	0.55
		6	1.13	0.70
		7	1.42	0.88
		8	1.56	0.97
	L	1	2.0	1.24
		2	2.6	1.62
		3	3.2	1.99
		4	3.6	2.24
		5	5.0	3.11
		6	6.3	3.91
		7	7.9	4.91
		8	8.7	5.41
	H	1	7.1	4.41
		2	9.0	5.59
		3	11.3	7.02
		4	12.5	7.77
		5	17.4	10.8
		6	22.1	13.7
		7	27.7	17.2
		8	30.5	19.0

(At rated engine rpm)

The company reserves the right to change the specifications without notice.

■ Reverse

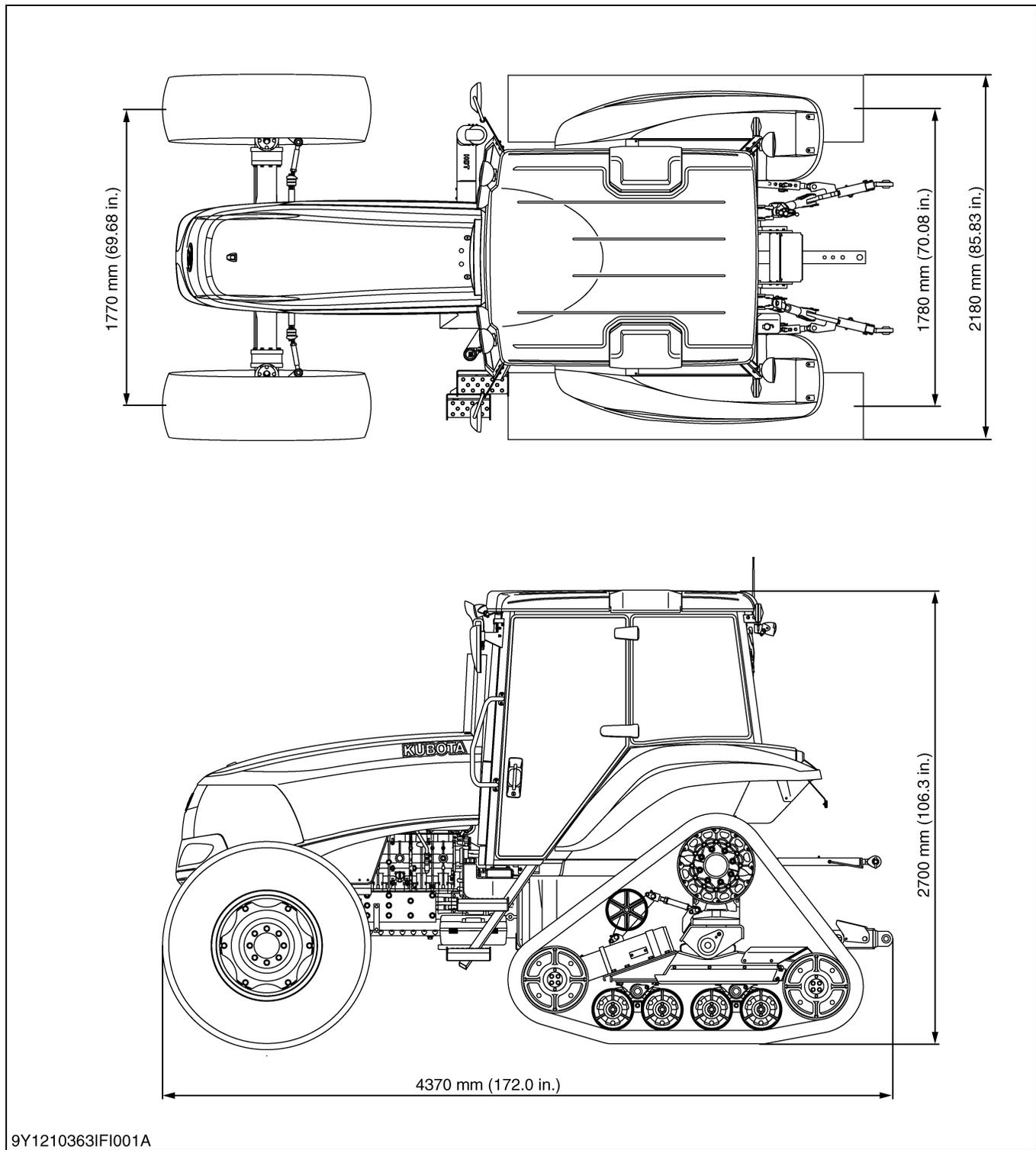
Model			M126XDTPC	
Shuttle shift lever	Range gear shift lever	Main gear shift lever	km/h	mph
Reverse	CREEP (option)	1	0.37	0.22
		2	0.47	0.29
		3	0.59	0.36
		4	0.64	0.40
		5	0.90	0.56
		6	1.14	0.71
		7	1.43	0.89
		8	1.58	0.98
	L	1	2.1	1.30
		2	2.6	1.62
		3	3.3	2.05
		4	3.6	2.24
		5	5.0	3.11
		6	6.4	3.98
		7	8.0	4.97
		8	8.8	5.47
	H	1	7.2	4.47
		2	9.1	5.65
		3	11.4	7.08
		4	12.6	7.83
		5	17.6	10.9
		6	22.2	13.8
		7	27.9	17.3
		8	30.7	19.1

(At rated engine rpm)

The company reserves the right to change the specifications without notice.

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5. DIMENSIONS



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PG GENERAL

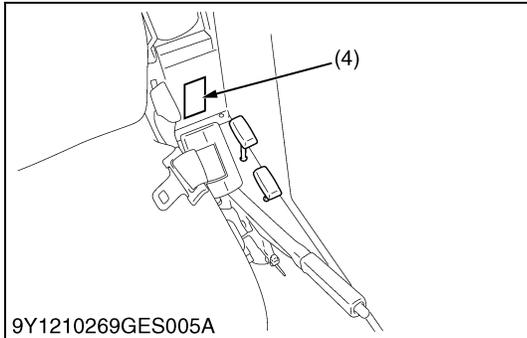
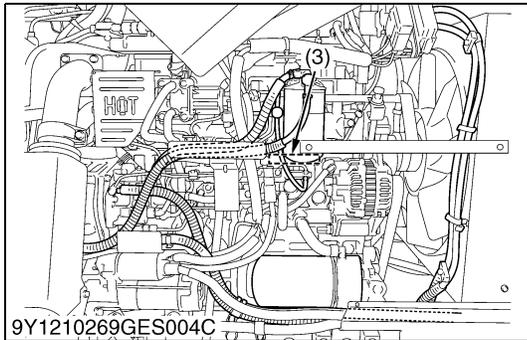
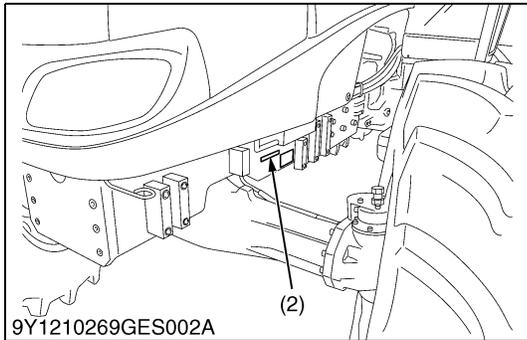
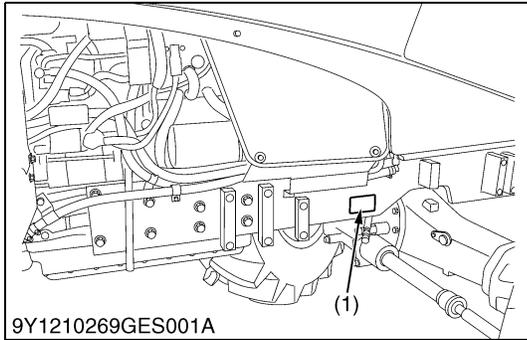
GENERAL

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2. LUBRICANTS FUEL AND COOLANT	PG-2
3. MAINTENANCE.....	PG-4
4. CHECK AND MAINTENANCE	PG-5
[1] DAILY CHECK.....	PG-5
[2] CHECK POINTS OF EVERY 50 HOURS	PG-7
[3] CHECK POINTS OF EVERY 100 HOURS	PG-8
[4] CHECK POINTS OF EVERY 600 HOURS	PG-10
[5] OTHERS.....	PG-11
5. SPECIAL TOOLS FOR TRACTOR	PG-14
[1] SPECIAL TOOLS FOR TRACTOR	PG-14

1. TRACTOR IDENTIFICATION

[1] MODEL NAME AND SERIAL NUMBER



When contacting the manufacture or your local KUBOTA distributor, always specify engine serial number, tractor serial number and hourmeter reading.

The engine model and its serial number need to be identified before the engine can be serviced or parts replaced.

- | | |
|----------------------------------|---|
| (1) Tractor Identification Plate | (3) Engine Serial Number |
| (2) Tractor Serial Number | (4) Cabin Identification Plate
(Cabin Serial Number) |

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2. LUBRICANTS FUEL AND COOLANT

No.	Place	Capacity	Lubricants, fuel and coolant
1	Fuel	190 L 50.2 U.S.gals 41.8 Imp.gals	<ul style="list-style-type: none"> No. 2-D diesel fuel No. 1-D diesel fuel if temperature is below -10 °C (14 °F)
2	Cooling system	14.6 L 15.4 U.S.qts 12.8 Imp.qts	Fresh clean soft water with anti-freeze
	Recovery tank	1.5 L 1.6 U.S.qts 1.4 Imp.qts	
3	Washer liquid	1.3 L 1.4 U.S.qts 1.1 Imp.qts	Automobile washer liquid
4	Engine crankcase (with filter)	14.6 L 15.4 U.S.qts 12.8 Imp.qts	Engine oil API Service Classification: CF or CI-4 [External EGR type engine] <ul style="list-style-type: none"> Above 25 °C (77 °F) SAE30, SAE10W-30 or 15W-40 0 to 25 °C (32 to 77 °F) SAE20, SAE10W-30 or 15W-40 Below 0 °C (32 °F) SAE10W, SAE10W-30 or 15W-40
5	Transmission case	60 L 63.4 U.S.qts 52.8 Imp.qts	KUBOTA UDT or SUPER UDT fluid*
6	Brake oil (reservoir and lines)	0.3 L 0.3 U.S.qts 0.3 Imp.qts	KUBOTA UDT or SUPER UDT fluid* or Turbine oil 32 (See below) regular type, multipurpose straight mineral oil Mobil DTE Oil #32 TEXACO Regal Oil #32 CHEVRON -GST Oil #32 TERESSO OIL #32 Never use automotive brake oil.
7	Front idler case oil	0.5 L 0.5 U.S.qts 0.4 Imp.qts	KUBOTA UDT or SUPER UDT fluid* or SAE80, SAE90 gear oil
8	Rear idler case oil	0.5 L 0.5 U.S.qts 0.4 Imp.qts	
9	Track roller case oil	0.2 L 0.2 U.S.qts 0.2 Imp.qts	
10	Front differential case oil	13.0 L 13.7 U.S.qts 11.4 Imp.qts	
11	Front axle gear case oil	4.5 L 4.8 U.S.qts 4.0 Imp.qts	

Greasing				
No.	Place	No. of greasing point	Capacity	Type of grease
12	Top link	2	Until grease overflows	Multipurpose grease NLGI-2 or NLGI-1 (GC-LB)
	Lift rod	3		
	Front axle gear case support	2		
	Front axle support	2		
	Steering joint shaft	1		
	Assist cylinder (if equipped)	2		
	Sprocket	24		
	Swing pivot	6		
	Guide roller	6		
	Battery terminal	2	A small amount	

■ **NOTE**

- *KUBOTA original transmission hydraulic fluid.

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3. MAINTENANCE

No.	Item		Service Interval													Since then	Important		Reference page		
			50	100	150	200	250	300	350	400	450	500	550	600	650					700	
1	Crawler track tension	Adjust	★	☆		☆		☆		☆		☆		☆		☆	every 100 Hr			PG-8	
2	Greasing (crawler)	–	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	every 50 Hr			PG-7	
3	Guide roller	Adjust		☆		☆		☆		☆		☆		☆		☆	every 100 Hr			PG-10	
4	Greasing	–		☆		☆		☆		☆		☆		☆		☆	every 100 Hr			PG-7	
5	Front idler case oil	Change												☆			every 600 Hr			PG-10	
6	Rear idler case oil	Change												☆			every 600 Hr			PG-10	
7	Track roller case oil	Change												☆			every 600 Hr			PG-10	
8	Sprocket	Replace															Service as required			PG-11	
9	Crawler track	Replace																			PG-12
10	Crawler track	Rotation																			PG-13

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4. CHECK AND MAINTENANCE



CAUTION

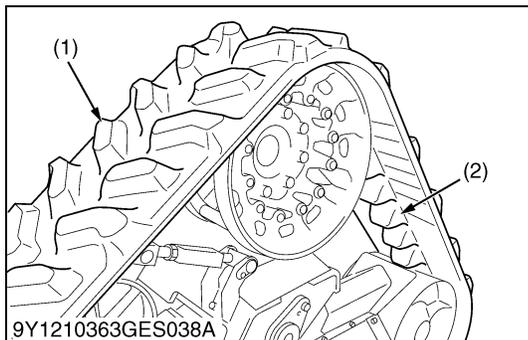
- Be sure to check and service the tractor on a flat place with engine shut off, the parking brake on and chock the wheels.

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[1] DAILY CHECK

For your own safety and maximum service life of the machine, make a through daily inspection before operating the machine to start the engine.

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Crawler Inspection

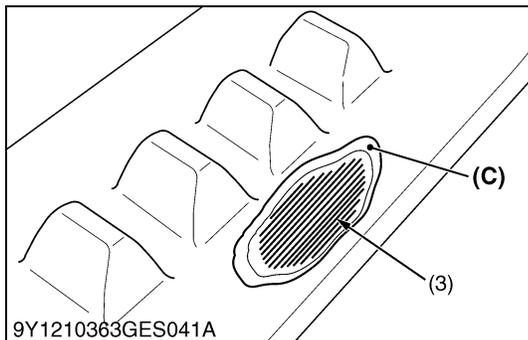
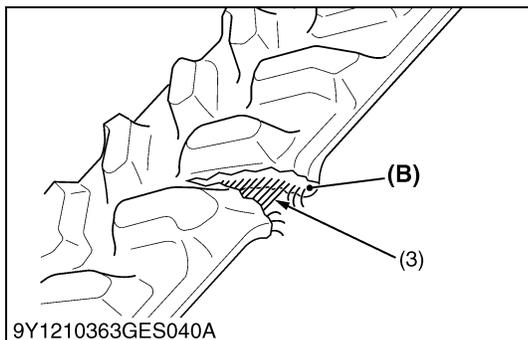
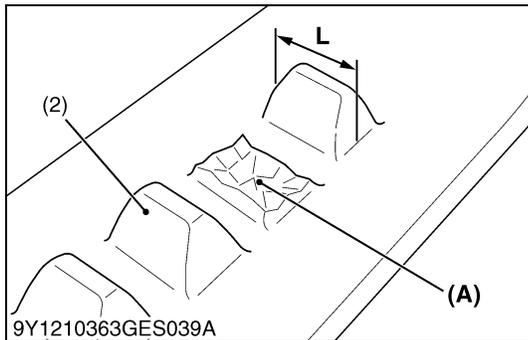
1. Check the crawler tread lugs (1) and the crawler drive lugs (2) for wear or missing.
If the crawler drive lug (1) is found missing or unusually worn, replace the crawler track with new one.
2. Check the crawler track for signs of large damage, such as cracking and peel off.
If the crawler track is found cracked or replaced, which is deep enough to reach the steel cord, replace it with new one.

- (1) Crawler Tread Lug
(2) Crawler Drive Lug
(3) Steel Cord

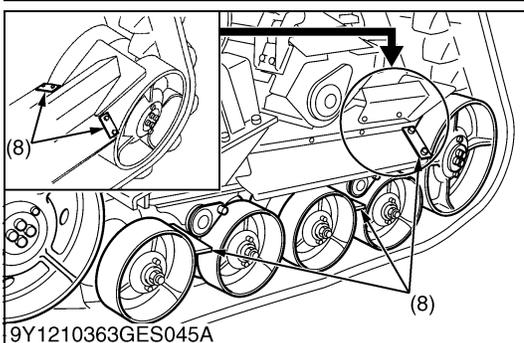
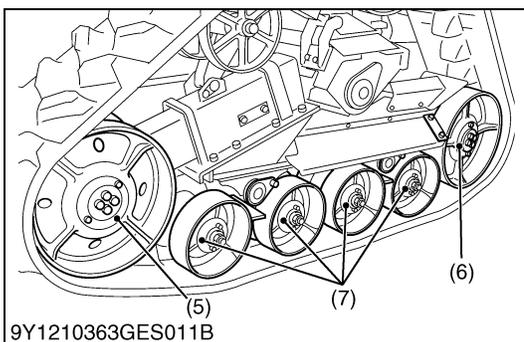
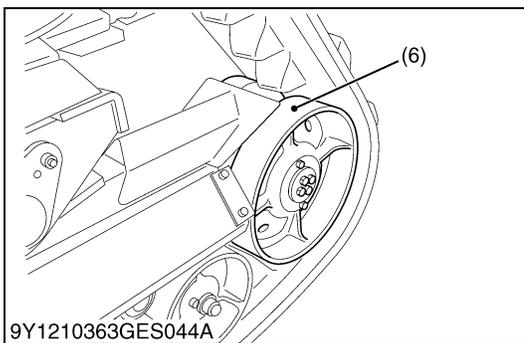
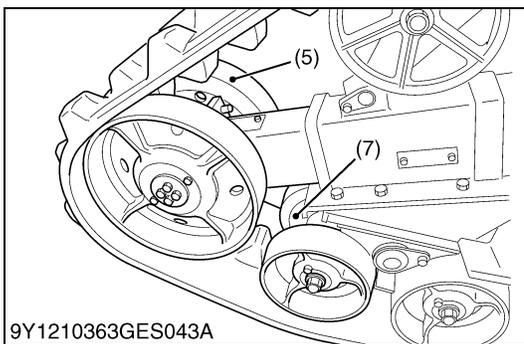
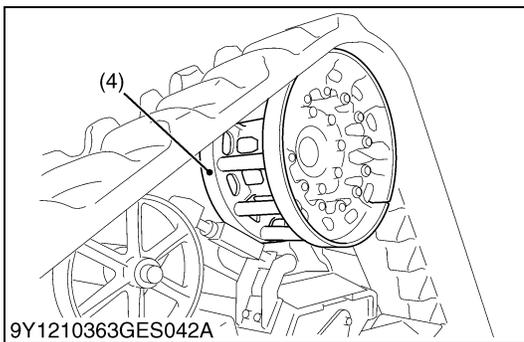
- (A) MISSING
(B) CRACKING
(C) PEEL OFF

L : Replace if narrower than 100 mm
(4 in.) at the lug base.

(To be continued)



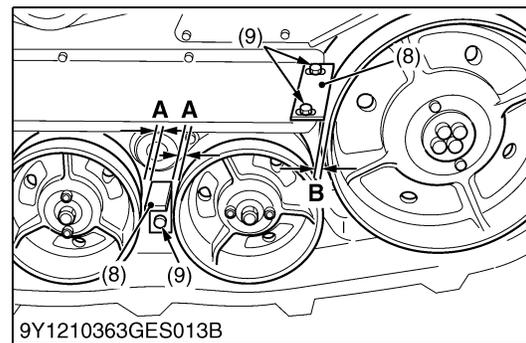
(Continued)



3. Check whether any stones are caught in the sprocket, front and rear and rear idlers or track rollers. Also see if these parts are clogged with mud.
4. Check the idlers and track rollers for oil leaks.
5. Checking the clearance at the scraper.
If the clearance is not within the factory specification, loosen the bolts and move the scraper (8) vertically or horizontally to readjust the clearance.

(Reference)

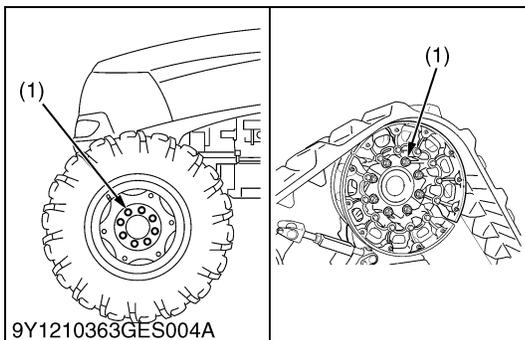
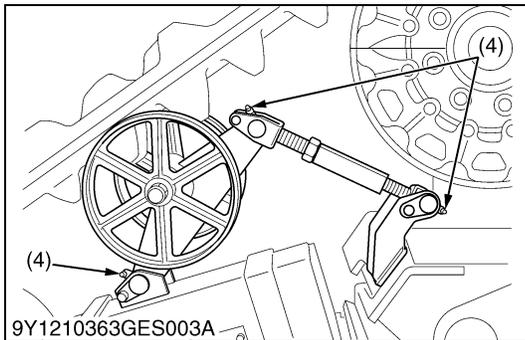
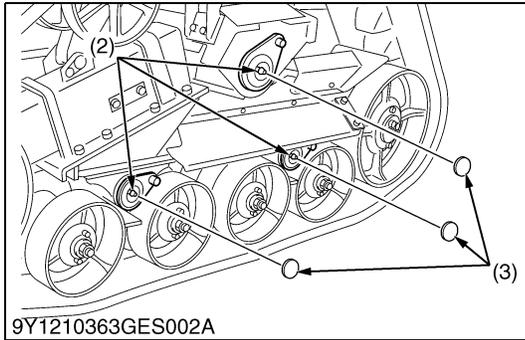
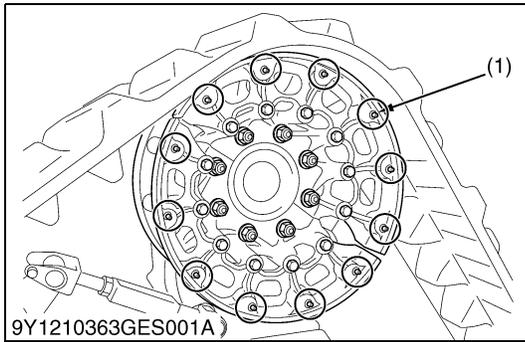
Clearance between scraper edge and track roller "A"	Factory spec.	3.0 to 5.0 mm 0.12 to 0.19 in.
Clearance between scraper edge and rear idler "B"		



- (4) Sprocket
 - (5) Front Idler
 - (6) Rear Idler
 - (7) Track Rollers
 - (8) Scraper
 - (9) Bolt
- A : Clearance**
B : Clearance

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[2] CHECK POINTS OF EVERY 50 HOURS



Lubricating Grease Fittings

1. Apply a small amount of multipurpose grease to the following points every 50 hours :
If the tractor is operated in extremely wet or muddy condition, lubricate grease fittings more often.

- (1) Grease Fitting (Sprocket) (RH, LH-12 Grease Fittings on each Side)
- (2) Grease Fitting (Swing Pivot) (RH, LH)
- (3) Rubber Cap
- (4) Grease Fitting (Guide Roller) (RH, LH)

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Checking Wheel Torque

CAUTION

To avoid personal injury :

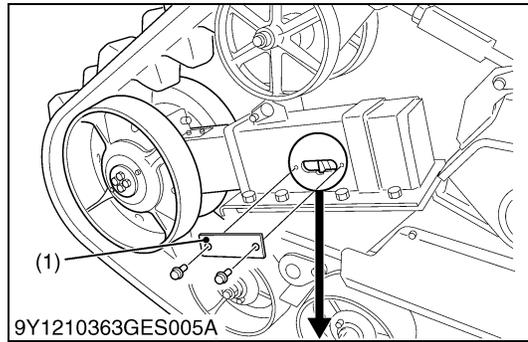
- Never operate the tractor with a loose rim, wheel, or axle.
 - Any time bolts and nuts are loosened, retighten them to specified torque.
 - Check all bolts and nuts frequently and keep them tight.
1. Check wheel bolts and nuts especially when new. If they are loose, tighten them as follows.

Tightening torque	Front wheel mounting nut	260 to 304 N·m
	Sprocket mounting nut	26.5 to 31.0 kgf·m 192 to 224 lbf·ft

- (1) Nut

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[3] CHECK POINTS OF EVERY 100 HOURS



Adjusting Tension of Crawler Track

⚠ CAUTION

To avoid personal injury :

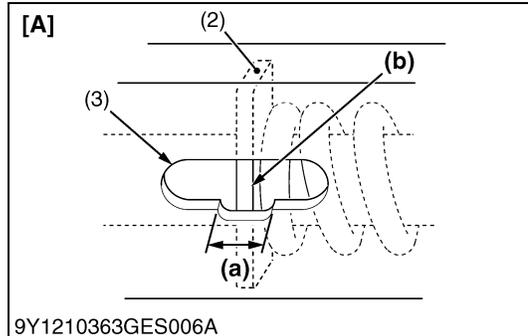
- **Traveling with a loose crawler track might cause the crawler track to come off during traveling. Check the tension of the crawler tracks before operation.**

1. Stop the tractor slowly on a flat surface and set the parking brake.
2. Check the crawlers and remove gravel, grass or debris of any kind.
3. Remove the check port cover (1).

[A] Left hand crawler

4. Check to see if the right edge (b) of the spring retainer (2) is within the reference range (a) in the check port (3).

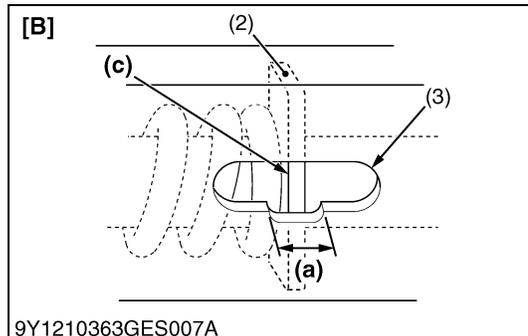
Right edge (b) stay at left side of the reference range	Tighten the crawler track
Right edge (b) stay at right side of the reference range	Loosen the crawler track



[B] Right hand crawler

5. Check to see if the left edge (c) of the spring retainer (2) is within the reference range (a) in the check port (3).

Right edge (c) stay at left side of the reference range	Loosen the crawler track
Right edge (c) stay at right side of the reference range	Tighten the crawler track



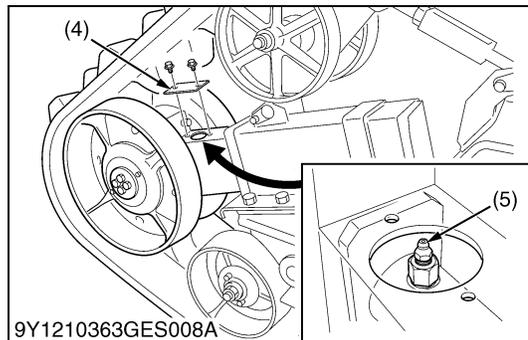
■ Tightening the crawler track

1. Remove the cylinder cover (4).
2. **[A] Left hand crawler**
Inject grease until the retainer's right edge (b) comes back to the center position of the reference range (a) through the grease fitting (5).

[B] Right hand crawler

Inject grease until the retainer's left edge (c) comes back to the center position of the reference range (a) through the grease fitting (5).

3. Move the tractor forward and backward several times and check the crawler track tension again.
4. Make sure the tension is as specified, assemble the cylinder cover (4).

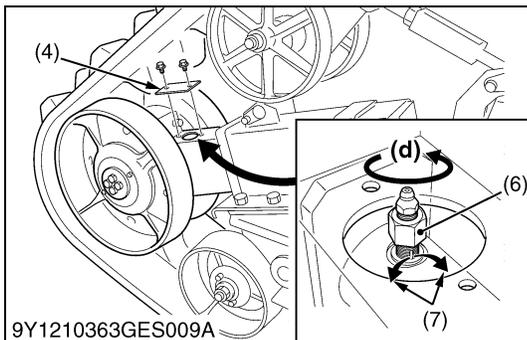
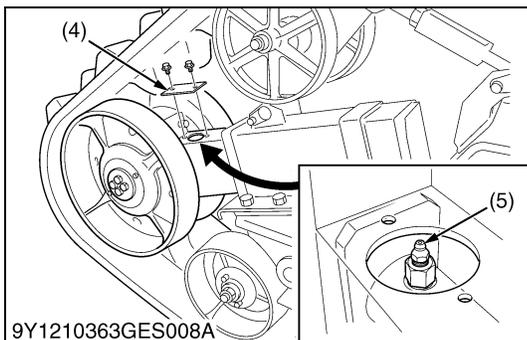
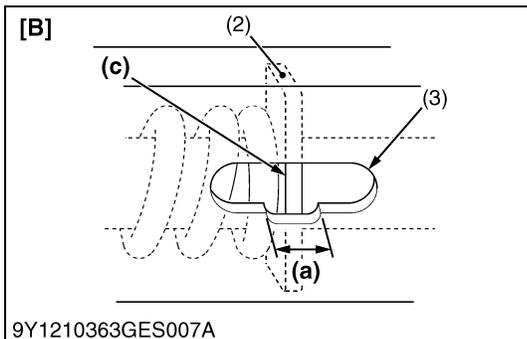
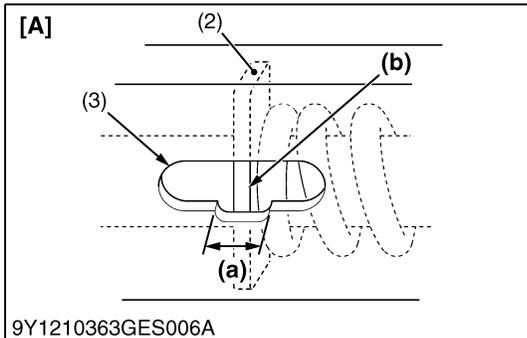
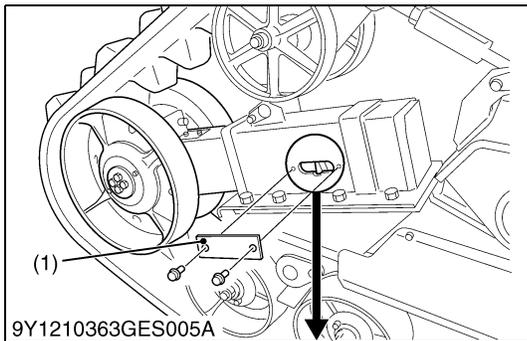


- (1) Check Port Cover
- (2) Spring Retainer
- (3) Check Port
- (4) Cylinder Cover
- (5) Grease Fitting
(Crawler Track Tension)

- [A] Left Hand Crawler**
- [B] Right Hand Crawler**

- (a) Reference Range**
- (b) Right Edge of the Spring Retainer**
- (c) Left Edge of the Spring Retainer**

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Loosening the Crawler Track

⚠ CAUTION

To avoid personal injury :

- Do not loosen the joint bolt completely or too quickly. Otherwise grease under high pressure in the tension cylinder could squirt out.
- When loosening the joint bolt, keep your face away from the bolt.

1. Remove the cylinder cover (1).
2. Using a box wrench, slowly loosen the joint bolt (6) 3 or 4 turns, and grease gushes out of the groove of the bolt. This makes the crawler track somewhat loosened.
3. **[A] Left hand crawler**
When the retainer's right edge (b) has come back to the center position of the reference range (a), tighten up the joint bolt.
[B] Right hand crawler
When the retainer's left edge (c) has come back to the center position of the reference range (a), tighten up the joint bolt.
4. Move the tractor forward and backward several times and check the crawler track tension again.
5. Make sure the tension is as specified, and attach the cylinder cover back in position.

■ IMPORTANT

- Adjust the crawler track tension as specified.

Too tight :

1. The track gets worn out earlier than expected.

Too loose :

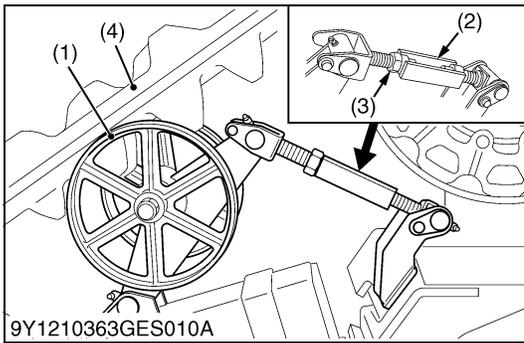
1. The sprocket may get out of mesh.
2. The crawler track gets worn out earlier than expected.
3. The sprocket may be dislocated the crawler track out of position.

- (1) Check Port Cover
- (2) Spring Retainer
- (3) Check Port
- (4) Cylinder Cover
- (5) Grease Fitting (Crawler Track Tension)
- (6) Joint Bolt
- (7) Grease

- [A] Left Hand Crawler**
- [B] Right Hand Crawler**

- (a) Reference Range**
- (b) Right Edge of the Spring Retainer**
- (c) Left Edge of the Spring Retainer**
- (d) Loosen**

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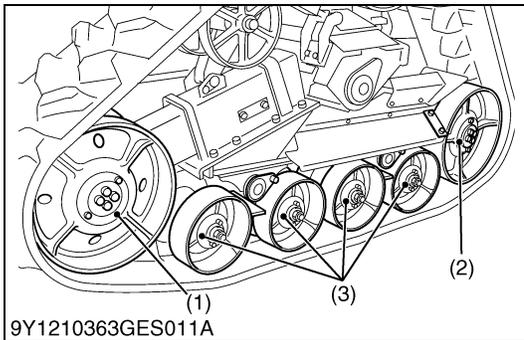
Adjusting Guide Roller

1. Loosen the lock nut (3) and turn the turnbuckle (2) until the guide roller (1) comes into contact with the crawler track (4). Then make another one turn or so of the turnbuckle (2).
2. Finally place the turnbuckle (2) sideways as shown in the figure and tighten the lock nut (3).

- (1) Guide Roller
- (2) Turnbuckle
- (3) Lock Nut
- (4) Crawler Track

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[4] CHECK POINTS OF EVERY 600 HOURS



Changing Front Idler, Rear Idler, Track Roller Case Oil

1. Stop the tractor so that the two bolts (4) of an idler become vertical.
2. Lift the tractor at the side other than that for letting out the oil.
3. Remove both bolts (4), and drain the oil. Take proper measures beforehand to keep the oil from splashing onto the crawler track.
4. After installing the lower bolt (4), add new oil of the specified amount. See "4. LUBRICANTS, FUEL AND COOLANT" section.
5. After adding oil, install the upper bolt (4) and tighten it.
6. Take steps 1 through 5 for other idlers and rollers.

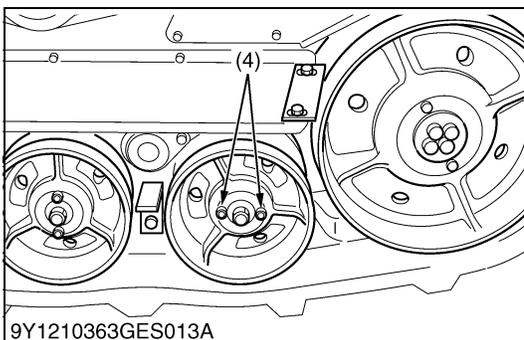
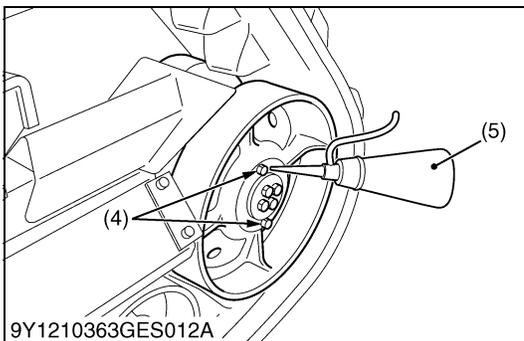
	Oil Capacity
Front idler case	0.5 L (0.5 U.S.qts, 0.4 Imp.qts) for each side
Rear idler case	
Track roller case	0.2 L (0.2 U.S.qts, 0.2 Imp.qts)

NOTE

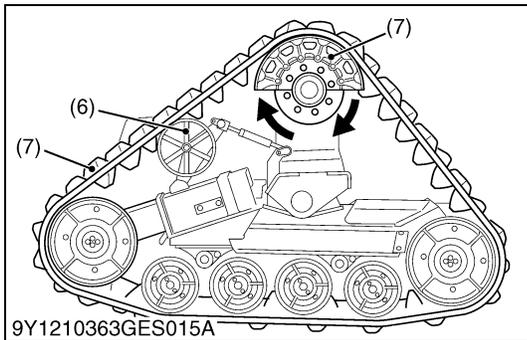
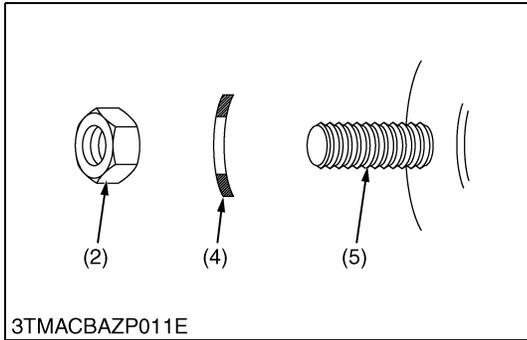
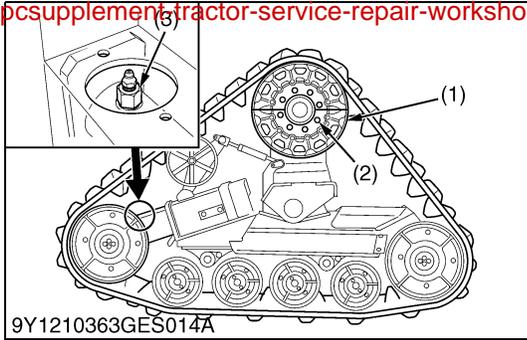
- Position the two bolt holes on the level. When the oil flows out, it means that its amount is as specified.

- (1) Front Idler
- (2) Rear Idler
- (3) Track Roller
- (4) Bolts
- (5) Oiler

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[5] OTHERS



CAUTION

To avoid personal injury :

- Do not loosen the joint bolt completely or too quickly. Otherwise grease under high pressure in the tension cylinder could squirt out.
- When loosening the joint bolt, keep your face away from the bolt.

The sprocket assembly consists of two sprockets (1).

1. Loosen the crawler track tension a little by loosening the joint bolt.
See "Adjusting Tension of Crawler Track" in "[3] CHECK POINTS OF EVERY 100 HOURS".
2. Move the tractor backward until the mating face between two sprockets becomes horizontal.
3. Stop the engine and replace the sprocket (1) at the bottom position with a new one as shown in the figure.

(When reassembling)

- Reinstall the belleville washer (4) so that the front and back of the belleville washer (4) are facing as shown in the figure.

Tightening torque	Sprocket mounting nut	260 to 304 N·m 26.5 to 31.0 kgf·m 192 to 224 lbf·ft
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4. Move the tractor backward slowly until the new sprocket (1) is in the upper position.
Stop the engine and replace the sprocket (1) at the bottom with a new one.
5. After replacing the two sprockets (1) with new ones, adjust the tension of the crawler track (7) and guide roller (6) properly. See "Adjusting Tension of Crawler Track" and "Adjusting Guide Roller" in "[3] CHECK POINTS OF EVERY 100 HOURS".

- | | |
|-----------------------|-------------------|
| (1) Sprocket | (5) Stud Bolt |
| (2) Nut | (6) Guide Roller |
| (3) Joint Bolt | (7) Crawler Track |
| (4) Belleville Washer | |

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