WSM

WORKSHOP MANUAL
TRACTOR

L4300

Kubota

KiSC issued 03, 2006 A

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GENERAL

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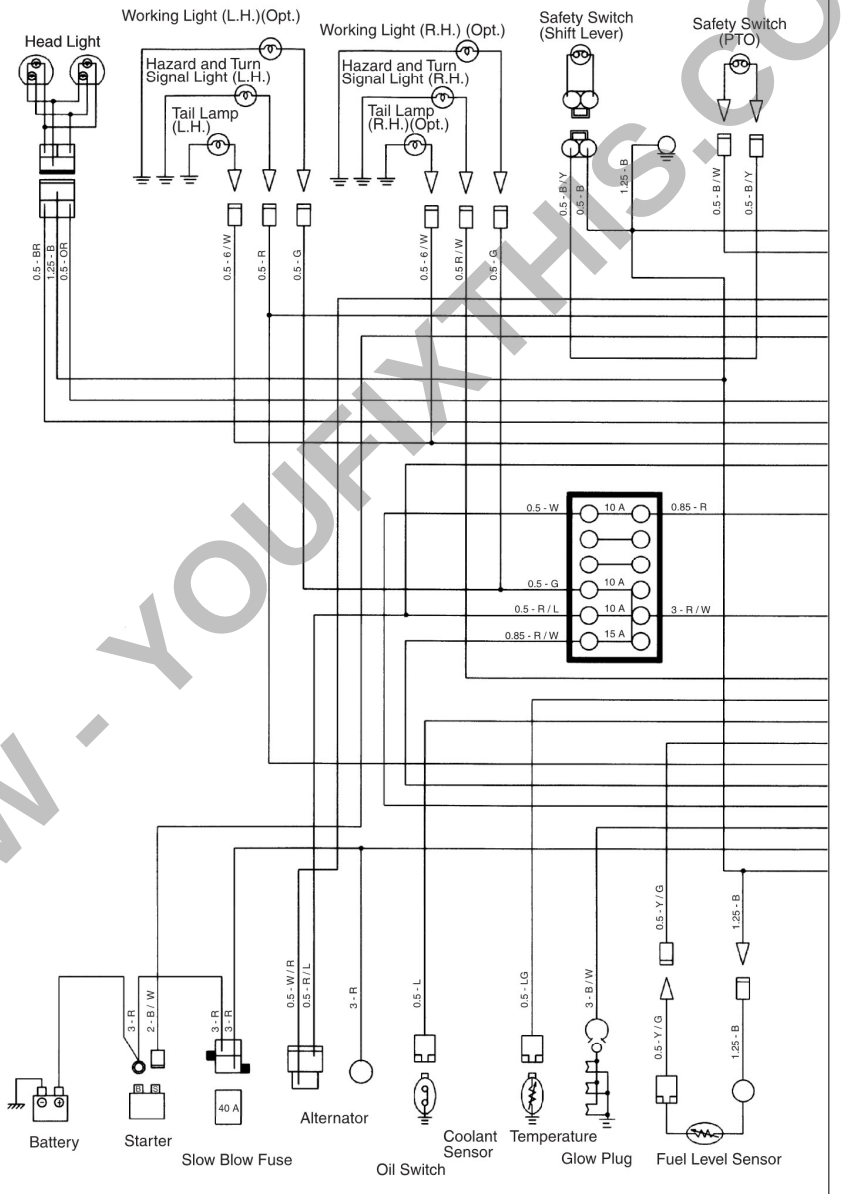
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1. WIRING DIAGRAM

[1] WIRING DIAGRAM (WITHOUT OPC)

● Color of Wiring

W	White
R	Red
L	Blue
Y	Yellow
B	Black
G	Green
P	Pink
Lg	Light Green
Br	Brown
Or	Orange
Sb	Sky Blue
WG	White / green
WB	White / Black
WR	White / Red
WY	White / Yellow
WL	White / Blue
RW	Red / White
RL	Red / blue
RY	Red / Yellow
RB	Red / Black
RG	Red / Green
BW	Black / White
BL	Black / Blue
BR	Black / Red
LY	Blue / Yellow
LW	Blue / White
LG	Blue / Green
LR	Blue / Red
LB	Blue / Black
LOr	Blue / Orange
YG	Yellow / Green
YR	Yellow / Red
YB	Yellow / Black
GR	Green / Red
GW	Green / White
LgY	Light Green / Yellow
LgB	Light Green / Black

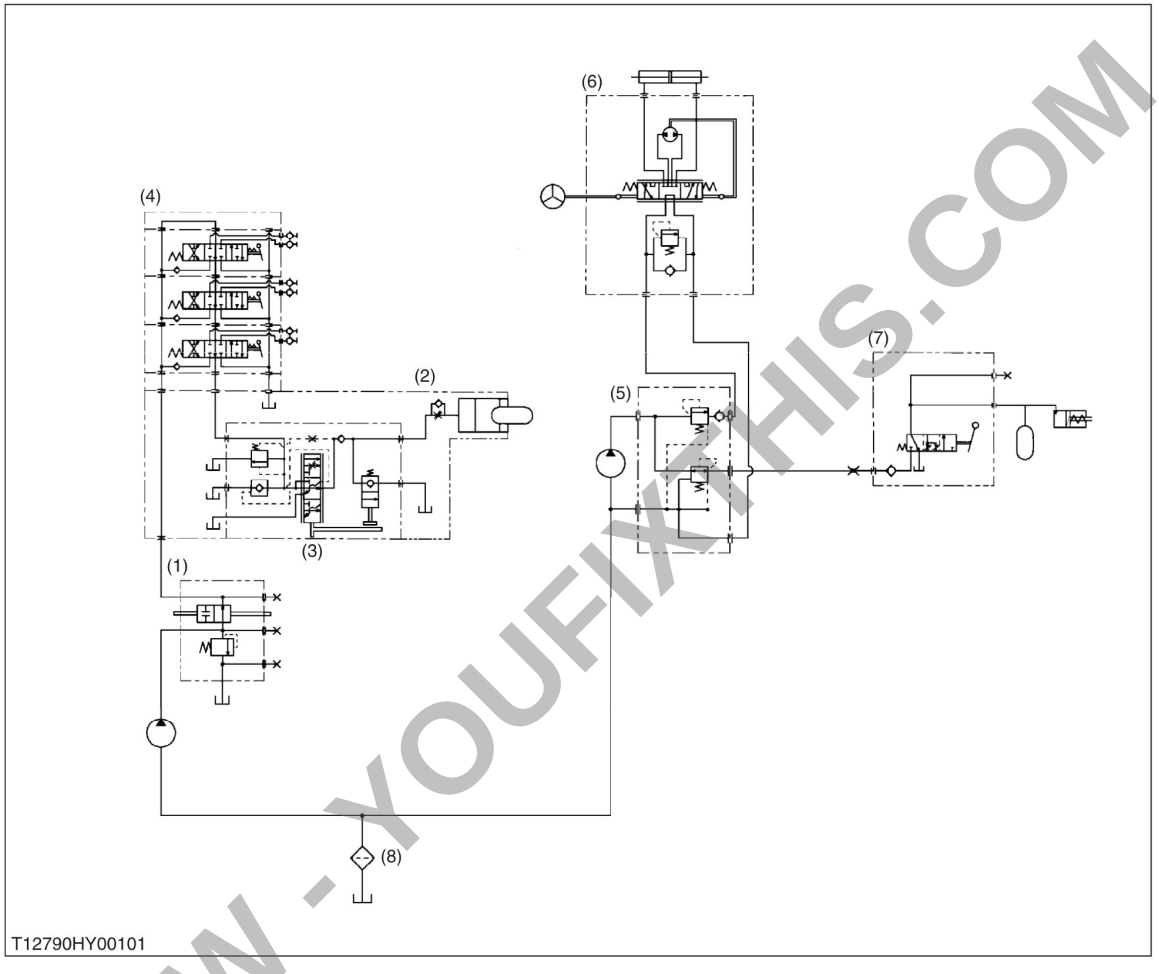


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1. HYDRAULIC CIRCUIT



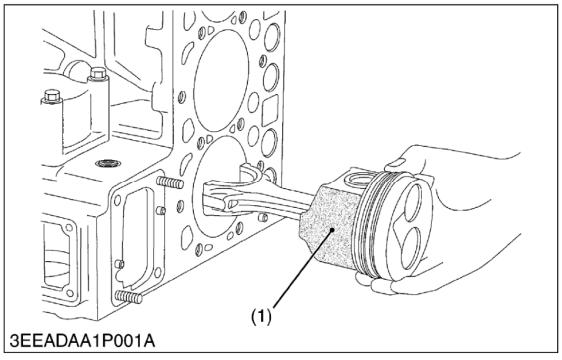
(1) Front Hydraulic Block
(2) Hydraulic Cylinder Block
(3) Position Control Valve
(4) Auxiliary Control Valve (Option)
(5) Regulator Valve (Refer to 2 CLUTCH)
(6) Power Steering Controller (Refer to 7 STEERING)
(7) Independent PTO Valve (Refer to 2 CLUTCH)
(8) Strainer

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1. ENGINE BODY

[1] PISTON



Piston's skirt is coated with molybdenum disulfied which reduces the piston slap noise and thus the entire operating noise.

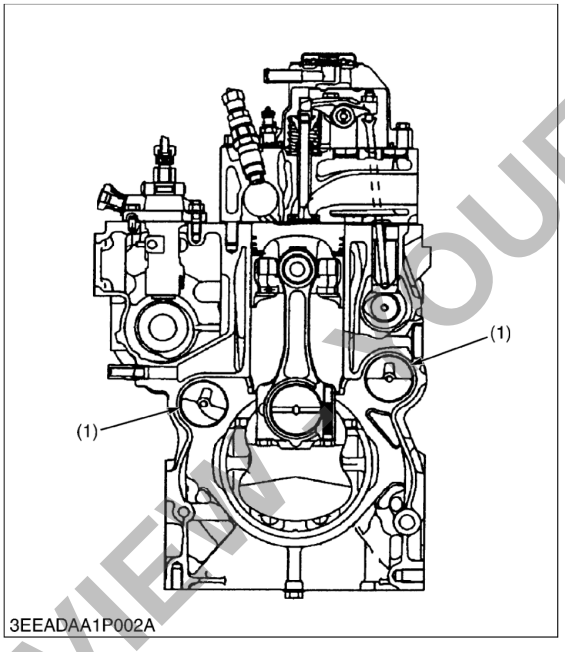
Molybdenum disulfide (MoS_2)

The molybdenum disulfide (1) serves as a solid lubricant, like a Graphite or Teflon. This material helps resist metal wears even with little lube oil.

(1)Molybdenum Disulfide

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[2] BUILT-IN DYNAMIC BALANCER



Engine are sure to vibrate by piston's reciprocation. Theoretically, three-cylinder engines are much less prone to cause vibration than four-cylinder ones (second inertia, etc.). However, any engine has many moving parts in addition to its pistons and cannot be completely free from vibration.

The four cylinders engine can be fitted with balance weight on crankcase to absorb the second inertia mentioned above and reduce vibration.

This engine is internally provide with two balancers (1), one at the suction side and the other at the exhaust side.

(1)Balancer

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6. TIGHTENING TORQUES

Screws, bolts and nuts whose tightening torques are not specified in this Workshop Manual should be tightened according to tables below.

[1] GENERAL USE SCREWS, BOLTS AND NUTS

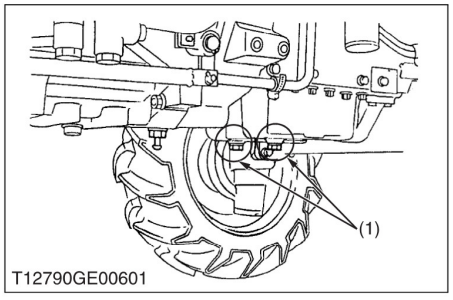
Indication on top of bolt	⬡ 4 No-grade or 4T						⬡ 7 7T						⬡ 9 9T		
Material of bolt	SS400, S20C						S43C, S48C						SCr435, SCM435		
Material of opponent part	Ordinariness			Aluminum			Ordinariness			Aluminum			Ordinariness		
Unit / Diameter	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs
M6 (6 mm, 0.24 in.)	7.85 to 9.31	0.80 to 0.95	5.79 to 6.87	7.85 to 8.82	0.80 to 0.90	5.79 to 6.50	9.81 to 11.2	1.00 to 1.15	7.24 to 8.31	7.85 to 8.82	0.80 to 0.90	5.79 to 6.50	12.3 to 14.2	1.25 to 1.45	9.05 to 10.4
M8 (8 mm, 0.31 in.)	17.7 to 20.5	1.8 to 2.1	13.1 to 15.1	16.7 to 19.6	1.7 to 2.0	12.3 to 14.4	23.6 to 27.4	2.4 to 2.8	17.4 to 20.2	17.7 to 20.5	1.8 to 2.1	13.1 to 15.1	29.5 to 34.3	3.0 to 3.5	21.7 to 25.3
M10 (10 mm, 0.39 in.)	39.3 to 45.1	4.0 to 4.6	29.0 to 33.2	31.4 to 34.3	3.2 to 3.5	23.2 to 25.3	48.1 to 55.8	4.9 to 5.7	35.5 to 41.2	39.3 to 44.1	4.0 to 4.5	29.0 to 32.5	60.9 to 70.6	6.2 to 7.2	44.9 to 52.0
M12 (12 mm, 0.47 in.)	62.8 to 72.5	6.4 to 7.4	46.3 to 53.5	–	–	–	77.5 to 90.2	7.9 to 9.2	57.2 to 66.5	62.8 to 72.5	6.4 to 7.4	46.3 to 53.5	103 to 117	10.5 to 12.0	76.0 to 86.7
M14 (14 mm, 0.55 in.)	108 to 125	11.0 to 12.8	79.6 to 92.5	–	–	–	124 to 147	12.6 to 15.0	91.2 to 108	–	–	–	167 to 196	17.0 to 20.0	123 to 144
M16 (16 mm, 0.63 in.)	167 to 191	17.0 to 19.5	123 to 141	–	–	–	197 to 225	20.0 to 23.0	145 to 166	–	–	–	260 to 304	26.5 to 31.0	192 to 224
M18 (18 mm, 0.71 in.)	246 to 284	25.0 to 29.0	181 to 209	–	–	–	275 to 318	28.0 to 32.5	203 to 235	–	–	–	344 to 402	35.0 to 41.0	254 to 296
M20 (20 mm, 0.79 in.)	334 to 392	34.0 to 40.0	246 to 289	–	–	–	368 to 431	37.5 to 44.0	272 to 318	–	–	–	491 to 568	50.0 to 58.0	362 to 419

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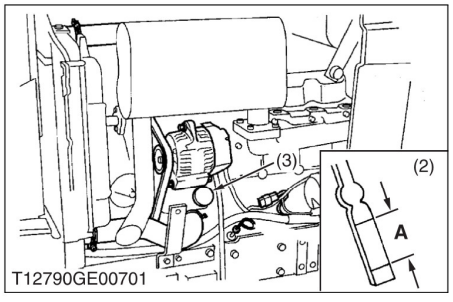
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[2] CHECK POINTS OF INITIAL 50 HOURS



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T12790GE00701

Changing Engine Oil

CAUTION

- **Before changing oil, be sure to stop the engine.**
- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

1. Start and warm up the engine for approx. 5 minutes.
2. Place an oil pan underneath the engine.
3. To drain the used oil, remove the both drain plugs (1) at the bottom of the engine and drain the oil completely.
4. Screw in the both drain plugs (1).
5. Fill new oil up to upper line on the dipstick (2).

IMPORTANT

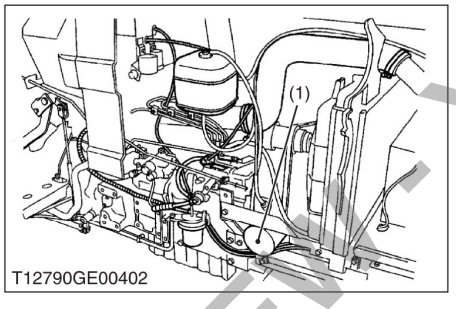
- **When using an oil of different manufacture or viscosity from the previous one, remove all of the old oil.**
- **Never mix two different types of oil.**
- **Use the proper SAE Engine Oil according to ambient temperatures.**
- **Refer to "LUBRICANTS, FUEL AND COOLANT". (See page G-8.)**

Engine oil capacity	7.6 L 8.0 U.S.qts 6.7 Imp.qts

(1) Drain Plug
(2) Dipstick
(3) Oil Inlet

A : Oil level is acceptable within this range.

W1014533



T12790GE00402

Replacing Engine Oil Filter Cartridge

CAUTION

- **Be sure to stop the engine before changing oil filter cartridge.**
- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

1. Remove the oil filter cartridge with the filter wrench.
2. Apply a slight coat of oil onto the new cartridge gasket.
3. To install the new cartridge, screw it in by hand. Over tightening may cause deformation of rubber gasket.
4. After the new cartridge has been replaced, the engine oil normally decrease a little. Thus see that the engine oil does not leak through the seal and be sure to read the oil level on the dipstick. Then, replenish the engine oil up to the specified level.

IMPORTANT

- **To prevent serious damage to the engine, replacement element must be highly efficient. Use only a KUBOTA genuine filter or its equivalent.**

(1) Engine Oil Filter

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1. TROUBLESHOOTING

Symptom	Probable Cause	Solution	Reference Page
Engine Does Not Start	• No fuel	Replenish fuel	G-8
	• Air in the fuel system	Bleed	G-30
	• Water in the fuel system	Change fuel and repair or replace fuel system	–
	• Fuel pipe clogged	Clean	–
	• Fuel filter clogged	Change	G-24
	• Excessively high viscosity of fuel or engine oil at low temperature	Use the specified fuel or engine oil	G-8
	• Fuel with low cetane number	Use the specified fuel	G-8
	• Fuel leak due to loose injection pipe retaining nut	Tighten nut	G-21, 1-S20
	• Incorrect injection timing	Adjust	1-S55
	• Fuel camshaft worn	Replace	–
	• Injection nozzle clogged	Clean	1-S56
	• Injection pump malfunctioning	Repair or replace	1-S55
	• Seizure of crankshaft, camshaft, piston, cylinder or bearing	Repair or replace	–
	• Compression leak from cylinder	Replace head gasket, tighten cylinder head screw, glow plug and nozzle holder	1-S18
	• Improper valve timing	Correct or replace timing gear	1-S23
	• Piston and cylinder worn	Replace	1-S31
	• Excessive valve clearance	Adjust	1-S19
Starter Does Not Run	• Battery discharged	Charge	9-S6
	• Starter malfunctioning	Repair or replace	9-S9
	• Main switch malfunctioning	Repair or replace	9-S8
	• Safety switches improperly adjusted or defective	Repair or replace	9-S11
	• Starter relay defective	Replace	9-S10
	• Wiring disconnected	Connect	–
Engine Revolution Is Not Smooth	• Fuel filter clogged or dirty	Change	G-24
	• Air cleaner clogged	Clean or change	G-19
	• Fuel leak due to loose injection pipe retaining nut	Tighten nut	G-21, 1-S20
	• Injection pump malfunctioning	Repair or replace	1-S55
	• Incorrect nozzle injection pressure	Adjust	1-S56
	• Injection nozzle stuck or clogged	Repair or replace	1-S56
	• Governor malfunctioning	Repair	1-S23
Either White or Blue Exhaust Gas Is Observe	• Excessive engine oil	Reduce to the specified level	G-12
	• Piston ring and cylinder worn or stuck	Repair or replace	1-S31
	• Incorrect injection timing	Adjust	1-S55
	• Deficient compression	Adjust top clearance	1-S20

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SPECIFICATIONS

Model			L4300	
			2WD	4WD
Maximum PTO power			28.0 kW (37.5 HP)*	
Engine NET power			32.1 kW (43.0‘ HP)*	
Engine	Model		V2203-EA1 / V2203-M-E2A-1	
	Type		Indirect injection, vertical, water-cooled, 4-cycle diesel engine	
	No. of cylinders		4	
	Bore and stroke		87 × 92.4 mm (3.4 × 3.6 in.)	
	Total displacement		2197 cm^3 (134.1 cu.in.)	
	Rated revolution		43.3 r/s (2600 rpm)	
	Combustion chamber		Spherical type (E-TVCS)	
	Fuel injection pump		Bosch type mini pump (PFR4M)	
	Governor		Centrifugal ball mechanical governor	
	Injection nozzle		Trottle type	
	Injection timing		Before T.D.C. 0.314 rad (18 °)	
	Injection order		1 - 3 - 4 - 2	
	Injection pressure		13.73 MPa (140 kgf/cm^2, 1991 psi)	
	Compression ratio		23 : 1	
	Lubricating system		Forced lubrication by trochoidal pump	
	Cooling system		Pressurized radiator, forced circulation with water pump	
	Starting system		Electric starting with cell starter 12 V, 1.4 kW	
	Alternator		12 V, 480 W (40 AMPS)	
	Battery		12 V, 55 Ah, CCA : 580 – Cold cranking Amps at –18 °C (-0.4 °F)	
	Fuel		Diesel fuel No. 1 [below -10 °C (14 °F)] Diesel fuel No. 2 [above -10 °C (14 °F)]	
	Lubricating oil		CC or CD (API grade)	
	Weight (Dry)		206.5 kg (455 lbs)	
Capacities	Fuel tank		31.0 L (8.2 U.S.gals, 6.8 Imp.gals)	
	Engine crankcase		7.6 L (8.0 U.S.qts, 6.7 Imp.qts)	
	Engine coolant		6.3 L (6.7 U.S.qts, 5.5 Imp.qts)	
	Transmission case		39.0 L (10.3 U.S.gals, 8.6 Imp.gals)	
	Front axle case		5.5 L (5.8 U.S.qts, 4.8 Imp.qts)	
Dimensions (with Std. tires)	Overall length (without 3P)		3020 mm (118.9 in.)	2960 mm (116.6 in.)
	Overall length (with 3P)		3230 mm (127.2 in.)	3070 mm (120.9 in.)
	Overall width (minimum tread)		1585 mm (62.4 in.)	
	Overall height (Top of ROPS)		2155 mm (84.8 in.)	
	Overall height (Top of steering wheel)		1535 mm (60.4 in.)	
	Wheel base		1810 mm (71.3 in.)	1805 mm (71.1 in.)
	Min.ground clearance (Under transmission)		380 mm (15.0 in.)	
	Tread	Front	1215 mm (47.8 in.) 1315 mm (51.7 in.) 1415 mm (55.7 in.) 1515 mm (59.6 in.)	1155 mm (45.5 in.)
		Rear	1180 mm (46.5 in.), 1200 mm (47.2 in.), 1300 mm (51.2 in.), 1450 mm (57.1 in.), 1545 mm (60.8 in.)	

NOTE: *Manufacture’s estimate

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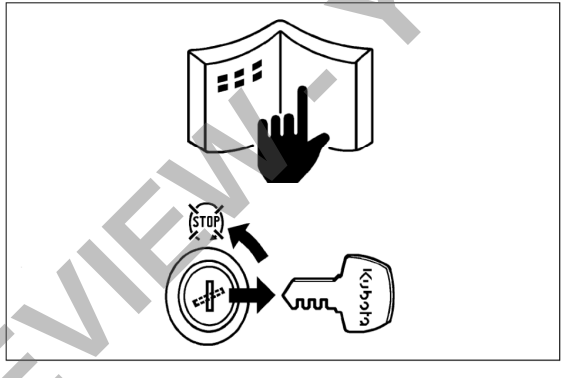
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SAFETY FIRST

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.**

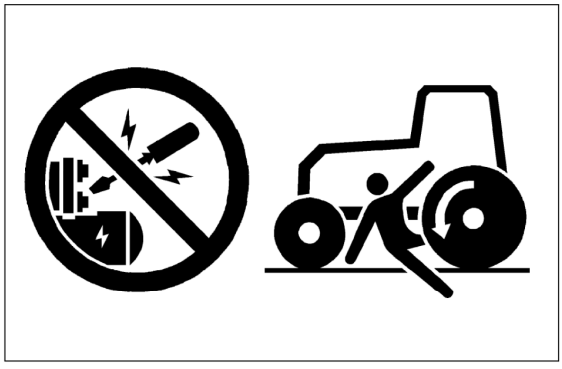


BEFORE SERVICING AND REPAIRING

- 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 firm and level ground, and set the parking brake.
- Lower the implement to the ground.
- Stop the engine, and remove the key.
- Disconnect the battery negative cable.
- Hang a "**DO NOT OPERATE**" tag in operator station.

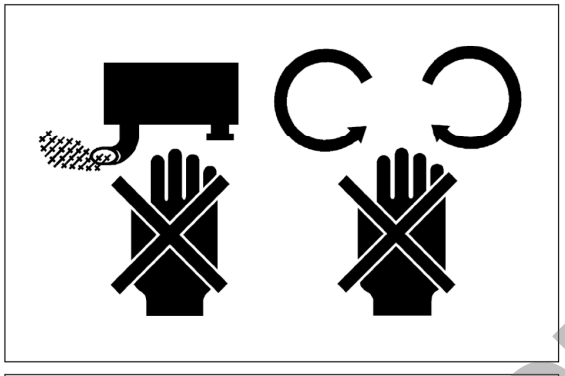
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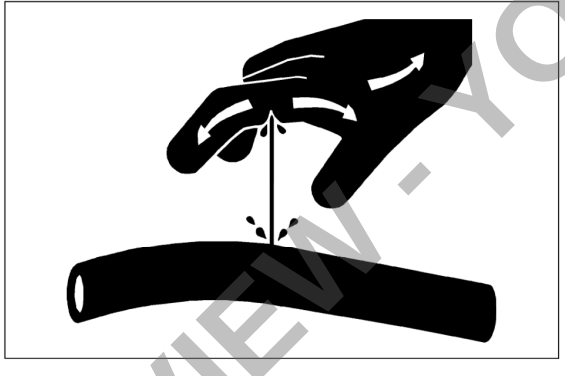
SAFETY STARTING

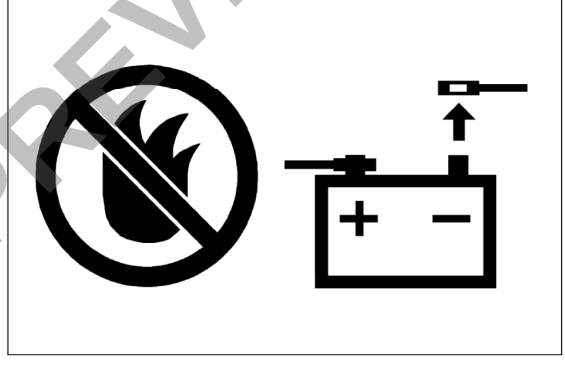
- Do not start the engine by shorting across starter terminals or bypassing the safety start switch.
- Do not alter or remove any part of machine safety system.
- Before starting the engine, make sure that all shift levers are in neutral positions or in disengaged positions.
- Never start the engine while standing on ground. Start the engine only from operator's seat.



SAFETY WORKING

- Do not work on the machine while under the influence of alcohol, medication, or other substances or while fatigued.
- Wear close fitting clothing and safety equipment appropriate to the job.
- Use tools appropriate to the work. Makeshift tools, parts, and procedures are not recommended.
- When servicing is performed together by two or more persons, take care to perform all work safely.
- Do not work under the machine that is supported solely by a jack. Always support the machine by safety stands.
- Do not touch the rotating or hot parts while the engine is running.
- Never remove the radiator cap while the engine is running, or immediately after stopping. Otherwise, hot water will spout out from radiator. Only remove radiator cap when cool enough to touch with bare hands. Slowly loosen the cap to first stop to relieve pressure before removing completely.
- Escaping fluid (fuel or hydraulic oil) under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or fuel lines. Tighten all connections before applying pressure.





AVOID FIRES

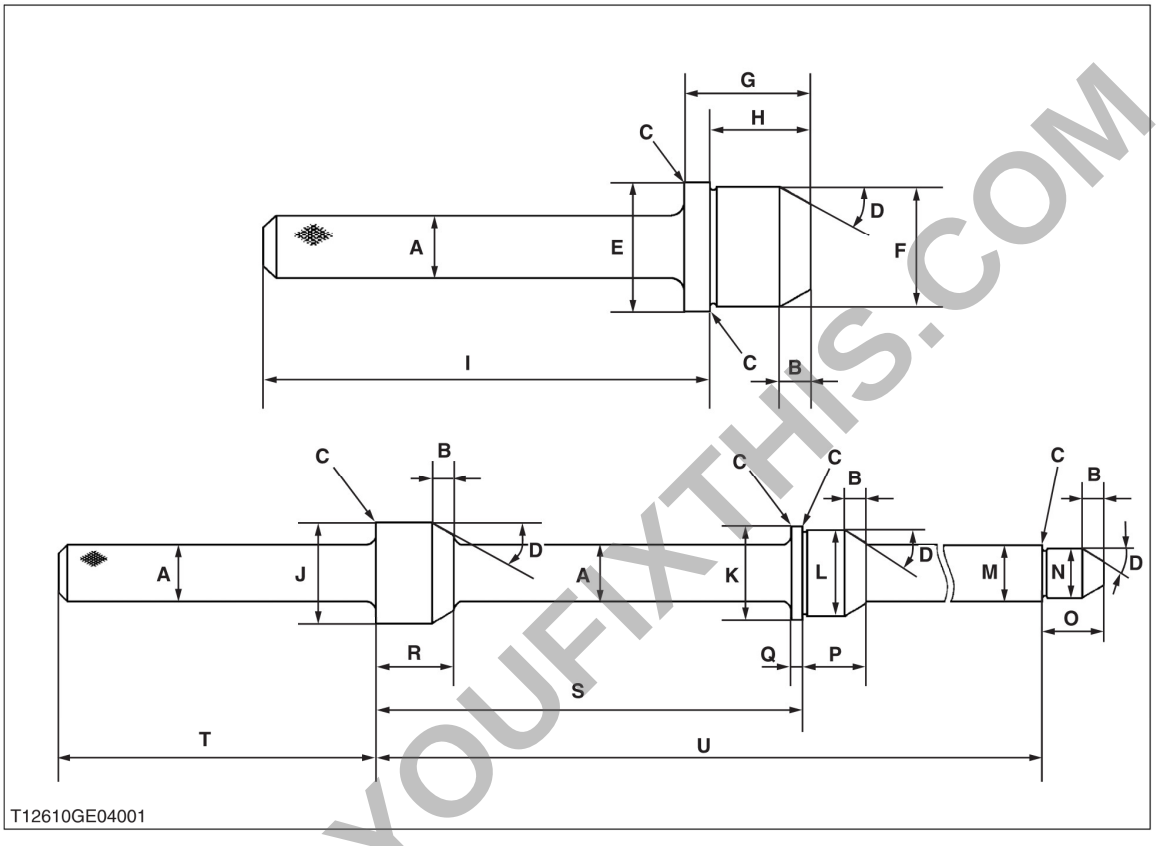
- Fuel is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.
- To avoid sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.
- Battery gas can explode. Keep sparks and open flame away from the top of battery, especially when charging the battery.
- Mark sure that no fuel has been spilled on the engine.

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Balancer Metal Replacing Tool (for Removing)

Application: Use to remove the metal bearing.

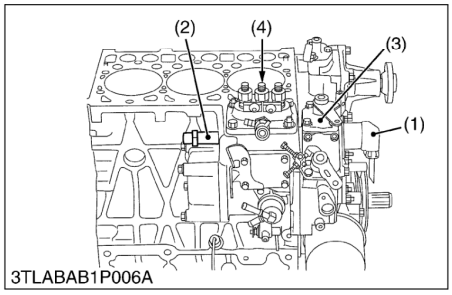


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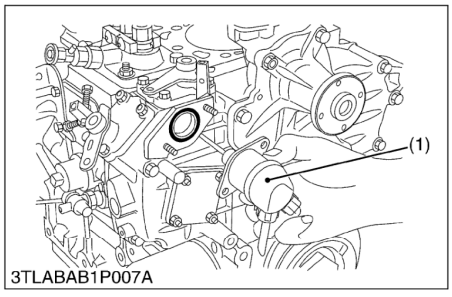
A	25 mm (0.98 in. dia.)	L	41.934 to 41.950 mm dia. (1.6509 to 1.6516 in. dia.)
B	10 mm (0.39 in.)	M	24.959 to 24.980 mm dia. (0.9826 to 0.9835 in. dia.)
C	Chamfer 0.3 mm (0.01 in.)	N	21.947 to 21.960 mm dia. (0.8641 to 0.8646 in. dia.)
D	0.52 rad (30 °)	O	28 mm (1.10 in.)
E	46.950 to 46.975 mm dia. (1.8484 to 1.8494 in. dia.)	P	29 mm (1.14 in.)
F	43.934 to 43.950 mm dia. (1.7297 to 1.7303 in. dia.)	Q	5 mm (0.20 in.)
G	41 mm (1.61 in.)	R	36 mm (1.42 in.)
H	32.5 mm (1.28 in.)	S	195.25 to 195.75 mm (7.687 to 7.707 in.)
I	148.5 mm (5.85 in.)	T	145 mm (5.71 in.)
J	46.50 to 46.75 mm dia. (1.831 to 1.841 in. dia.)	U	384.75 to 385.25 mm (15.148 to 15.167 in.)
K	44.950 to 44.975 mm dia. (1.7697 to 1.7707 in. dia.)		

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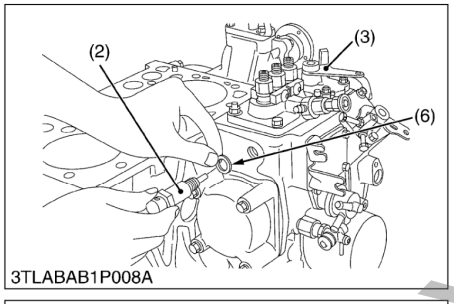
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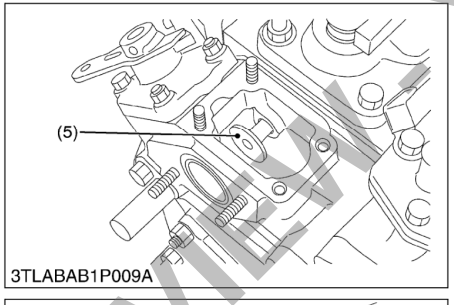
3TLABAB1P006A



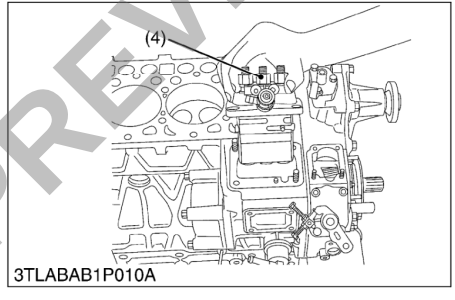
3TLABAB1P007A



3TLABAB1P008A



3TLABAB1P009A



3TLABAB1P010A

Injection Pump (V2203-M-E2A-1)

1. Remove the stop solenoid (1) and hi-idling body (2).
2. Remove the engine stop lever (3) and stop solenoid guide (5).
3. Remove the fuel injection pump assembly (4).

IMPORTANT

- **Before removing the injection pump assembly (4), be sure to remove the stop solenoid (1), hi-idling body (2), engine stop lever (3) and stop solenoid guide (5).**

(When reassembling)

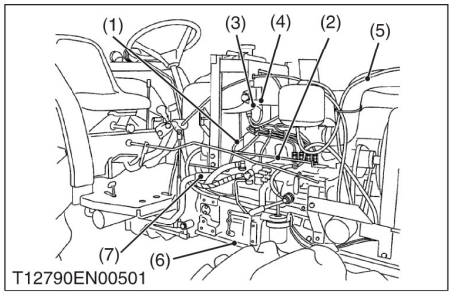
- Before attaching the stop solenoid (1), hi-idling body (2) and solenoid guide (5), install the injection pump first into position.
- Replace the hi-idling body gasket (6) with a new one.
- Before fitting the stop lever (3) to the gear case, install the solenoid guide (5) first into position. Then attach the stop lever and use it to see if it functions well.
- Before fitting the idling limiter in place, attach the solenoid guide (5) and the engine stop lever (3) in their respective positions.
- When installing the stop solenoid (1), be careful to keep the O-ring in place.
- Be sure to insert the push rod of the stop solenoid into the hole at the center of the solenoid guide (5).

Tightening torque	Hi-idling body	44.1 to 49.0 N·m 4.5 to 5.0 kgf·m 32.6 to 36.2 ft-lbs

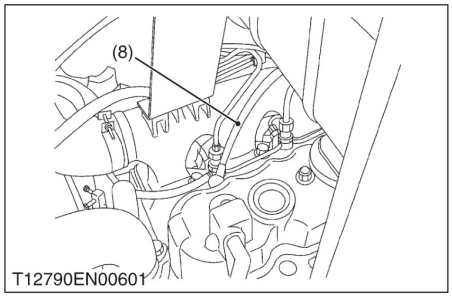
(1) Stop Solenoid
(2) Hi-idling Body
(3) Stop Lever
(4) Injection Pump Assembly
(5) Solenoid Guide
(6) Hi-idling Body Gasket

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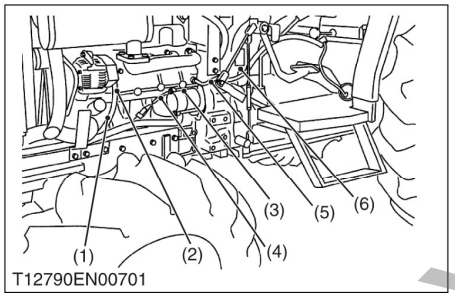
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T12790EN00501



T12790EN00601



T12790EN00701

Wiring ; Pipes and Rods

1. Disconnect the **1P** connector (1) for the water temperature sensor.
2. Remove the accelerator rod (2).
3. Disconnect the starter relay connector (3) and hazard relay connector (4).
4. Disconnect the glow plug terminal (8).
5. Remove the head light wiring (5).
6. Disconnect the **3P** delivery pipe (6).
7. Slide the rubber hose (7).

(When reassembling)

- Be sure to install the **3P** delivery pipe (6), rubber hose (7) and the O-rings.

(1) **1P** Connector (for Water Temperature Sensor)
(2) Accelerator Rod
(3) Starter Relay Connector
(4) Hazard Relay Connector
(5) Head Light Wiring
(6) **3P** Delivery Pipe
(7) Rubber Hose
(8) Glow Plug Terminal

W1018599

Wirings

1. Disconnect the **2P** connector (1) and wiring (2) for the alternator.
2. Disconnect the **1P** connector (2) and **B** terminal (4) for the starter motor.
3. Disconnect the **1P** connect (5) for the engine oil pressure switch.
4. Remove the ground wiring (6).

(When reassembling)

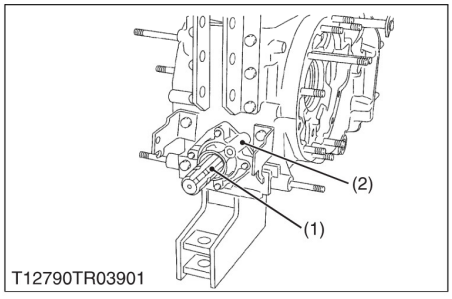
Tightening torque	Starter **B** terminal mounting nut	7.8 to 9.8 N·m 0.8 to 1.0 kgf·m 5.8 to 7.2 ft-lbs

(1) **2P** Connector (Alternator)
(2) Wiring (Alternator)
(3) **1P** Connector (Starter Motor)
(4) **B** Terminal (starter)
(5) **1P** Connector (Engine Oil Pressure Switch)
(6) Wiring (Ground)

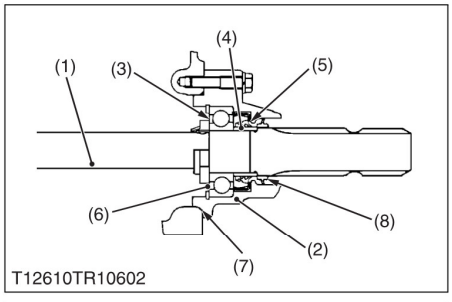
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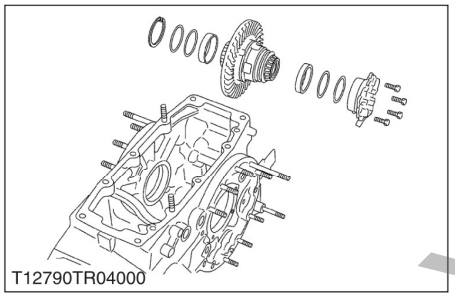
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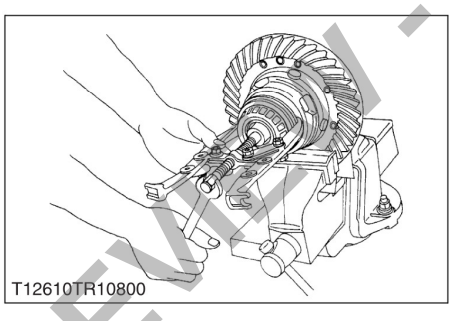


T12790TR03901



T12610TR10602


T12790TR04000


T12610TR10800

PTO Shaft

1. Remove the PTO shaft cover.
2. Remove the bearing case mounting screws, and draw out the PTO shaft (1) with bearing case (2).
3. Remove the internal snap ring (3).
4. Top out the PTO shaft (1) to the front.

(When reassembling)

- If the lock nut (6) was removed, replace it with a new one. After replacing, be sure to stake it firmly.
- Install the slinger (8) firmly.
- Apply grease to the oil seal (4) and install it, nothing its direction.

Tightening torque	Lock nut	147 to 196 N·m 15 to 20 kgf·m 108 to 145 ft-lbs
	Bearing case mounting screw	23.5 to 27.5 N·m 2.4 to 2.8 kgf·m 17.4 to 20.3 ft-lbs

(1) PTO Shaft
(2) Bearing Case
(3) Internal Snap Ring
(4) Oil Seal
(5) Oil Seal Collar
(6) Lock Nut
(7) O-ring
(8) Slinger

W1024203

Differential Gear Assembly

1. Remove the differential support, noting the number of left shims.
2. Take out the differential gear assembly, noting the number of right shims.

(When reassembling)

- Check the spiral bevel gear for wear or damage. If it is no longer serviceable, replace it. Then, also replace the spiral bevel pinion.
- Use same number of shims as before disassembling.

Tightening torque	Differential support mounting screw	48.1 to 55.9 N·m 4.9 to 5.7 kgf·m 35.5 to 41.2 ft-lbs

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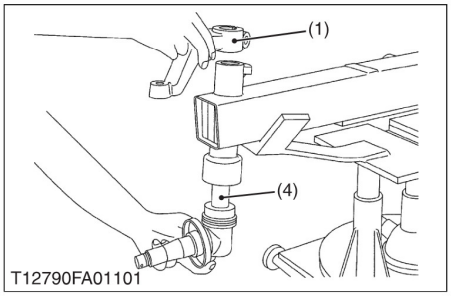
Bearing and Differential Lock Shifter

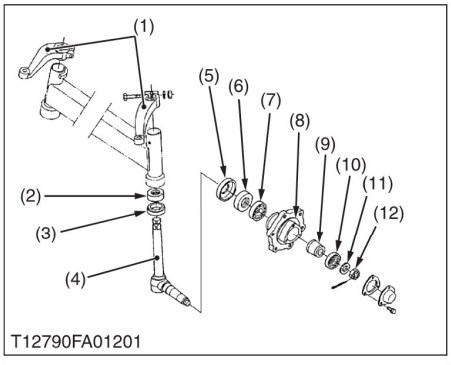
1. Secure the differential gear in a vise.
2. Remove the differential lock shifter and taper roller bearing as a unit with a puller.

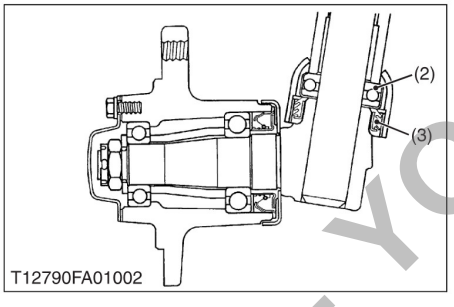
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Knuckle Shaft

1. Remove the knuckle arm (1) and draw out the knuckle shaft (4) from the front axle.

(When reassembling)

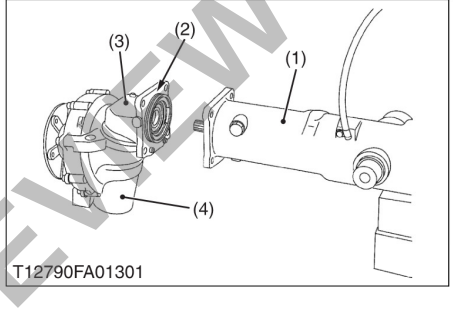
- Insert the thrust ball bearing (2) and oil seal (3), noting its direction.
- Apply grease to the oil seals (3), (6).
- Do not interchange right and left knuckle arms.
- When lift the knuckle shaft, the knuckle arms must be mounted so that the clearance between the knuckle arms and front axle is 0.3 to 1.0 mm (0.012 to 0.039 in.).

Tightening torque	Knuckle arm mounting bolt and nut	77.5 to 90.2 N·m 7.9 to 9.2 kgf·m 57.2 to 66.5 ft-lbs

(1) Knuckle Arm
(2) Thrust Ball Bearing
(3) Oil Seal
(4) Knuckle Shaft
(5) Dust Cover
(6) Oil Seal
(7) Ball Bearing
(8) Front Wheel Hub
(9) Spacer
(10) Ball Bearing
(11) Washer
(12) Slotted Nut

W1014597

(3) Disassembling 4WD Type Front Axle



Bevel Gear Case and Front Gear Case

1. Remove the bevel gear case mounting screws.
2. Remove the bevel gear case (3) and front gear case (4) as a unit from the front axle case (1).

(When reassembling)

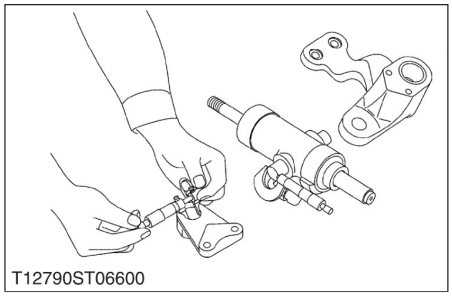
- Apply grease to the O-ring (2) and take care not to damage it.
- Do not interchange right and left bevel gear case assemblies and front gear case assemblies.

Tightening torque	Bevel gear case mounting screw	123.5 to 147.0 N·m 12.6 to 15.0 kgf·m 91.2 to 108.4 ft-lbs

(1) Front Axle Case
(2) O-ring
(3) Bevel Gear Case
(4) Front Gear Case

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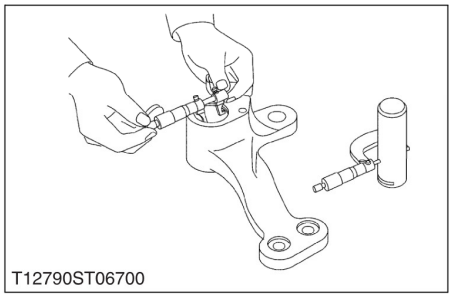
Clearance between Cylinder Tube Pin and Pitman Arm Bushing

1. Measure the cylinder tube pin O.D. with an outside micrometer.
2. Measure the pitman arm bushing I.D.with an inside micrometer, and calculate the clearance.
3. If the clearance exceeds the allowable limit, replace the pitman arm bushing.

Clearance between cylinder tube pin and pitman arm bushing	Factory spec.	0.020 to 0.122 mm 0.00079 to 0.00480 in.
	Allowable limit	0.35 mm 0.0138 in.

Cylinder tube pin O.D.	Factory spec.	23.959 to 23.980 mm 0.94327 to 0.94409 in.
Pitman arm bushing I.D.	Factory spec.	24.000 to 24.081 mm 0.94488 to 0.91807 in.

W1022792


T12790ST06700

Clearance between Pitman Arm Shaft and Pitman Arm Bushing

1. Measure the pitman arm shaft O.D. with an outside micrometer.
2. Measure the pitman arm bushings I.D. with an inside micrometer, and calculate the clearance.
3. If the clearance exceeds the allowable limit, replace the pitman arm bushing.

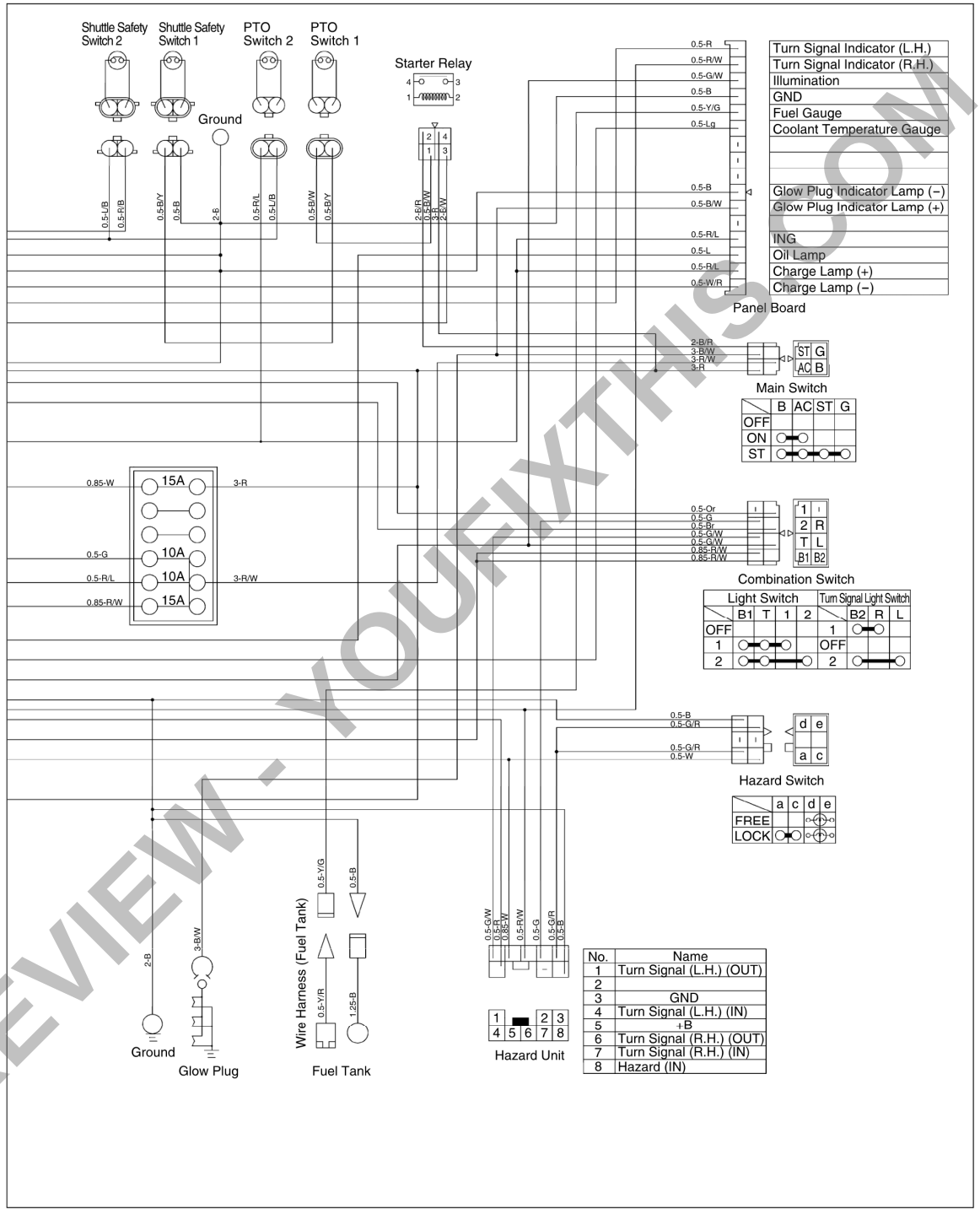
Clearance between pitman arm shaft and pitman arm bushings	Factory spec.	0.025 to 0.135 mm 0.00098 to 0.00531 in.
	Allowable limit	0.35 mm 0.0138 in.

Pitman arm shaft O.D.	Factory spec.	39.950 to 39.975 mm 1.57283 to 1.57382 in.
Pitman arm bushing I.D.	Factory spec.	40.000 to 40.085 mm 1.57480 to 1.57815 in.

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