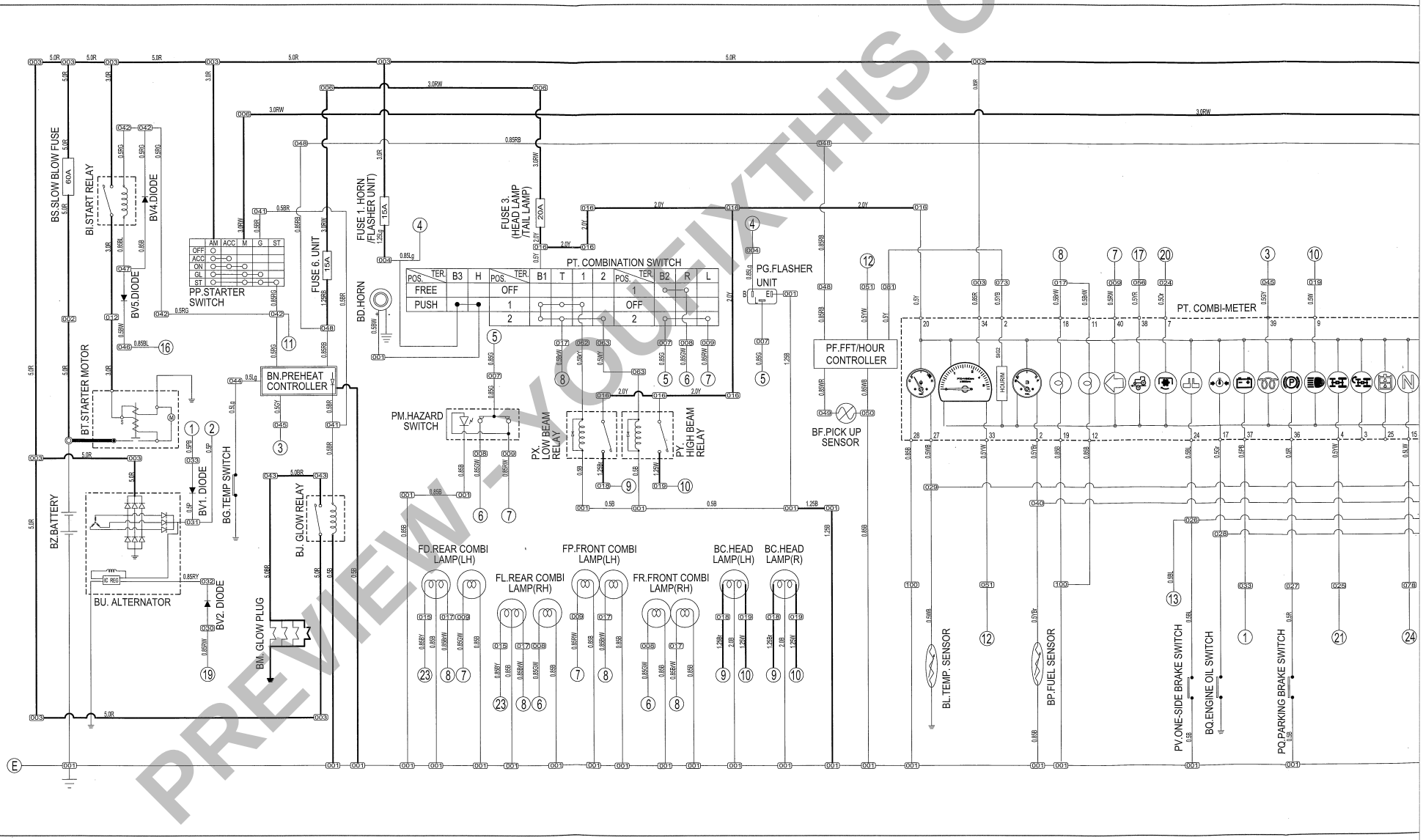
2. CIRCUIT AND COMPONENT LOCATION

2.1 CIRCUIT DIAGRAM

2.1.1 HST (EU)

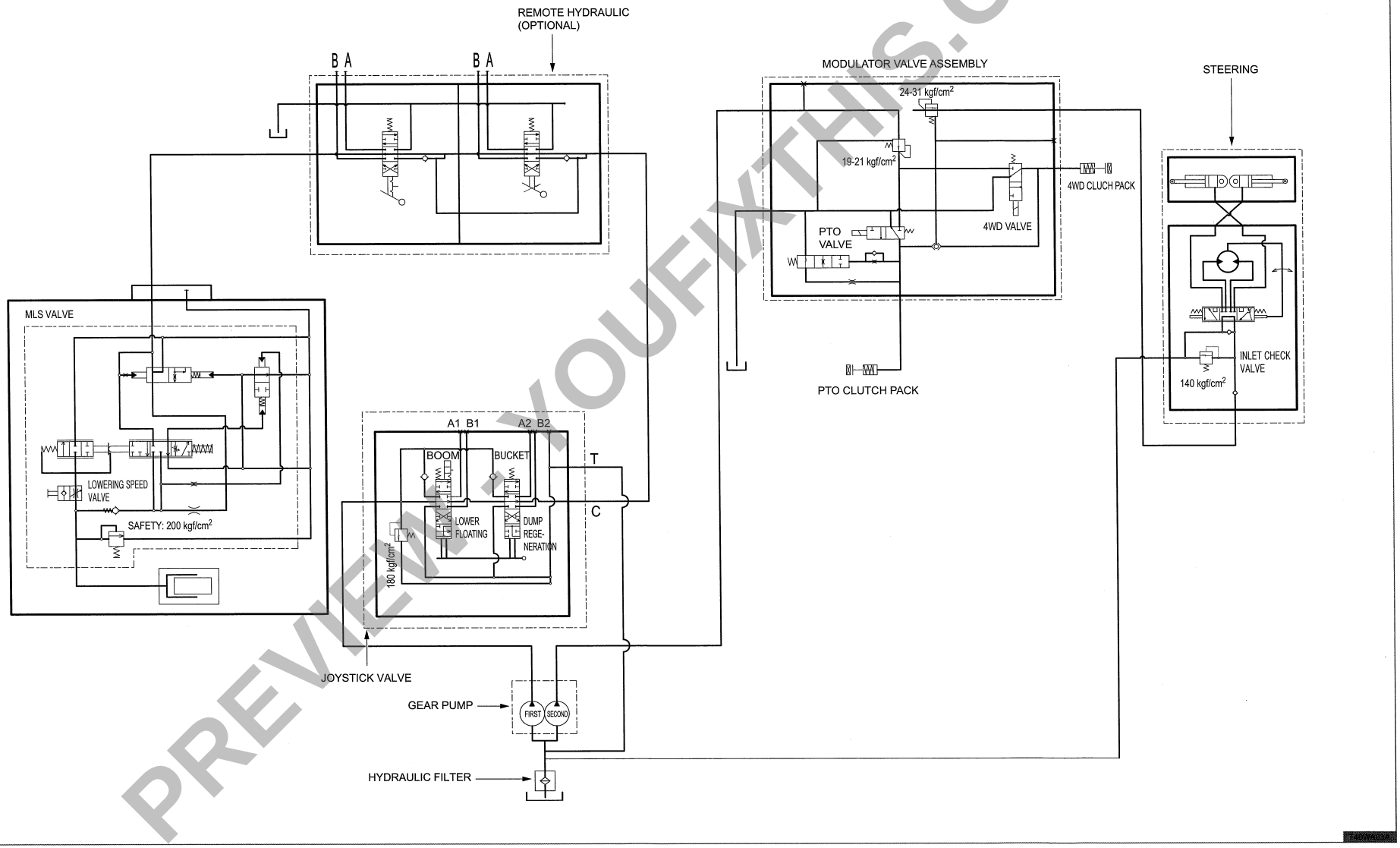


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2.1.2 Circuit diagram

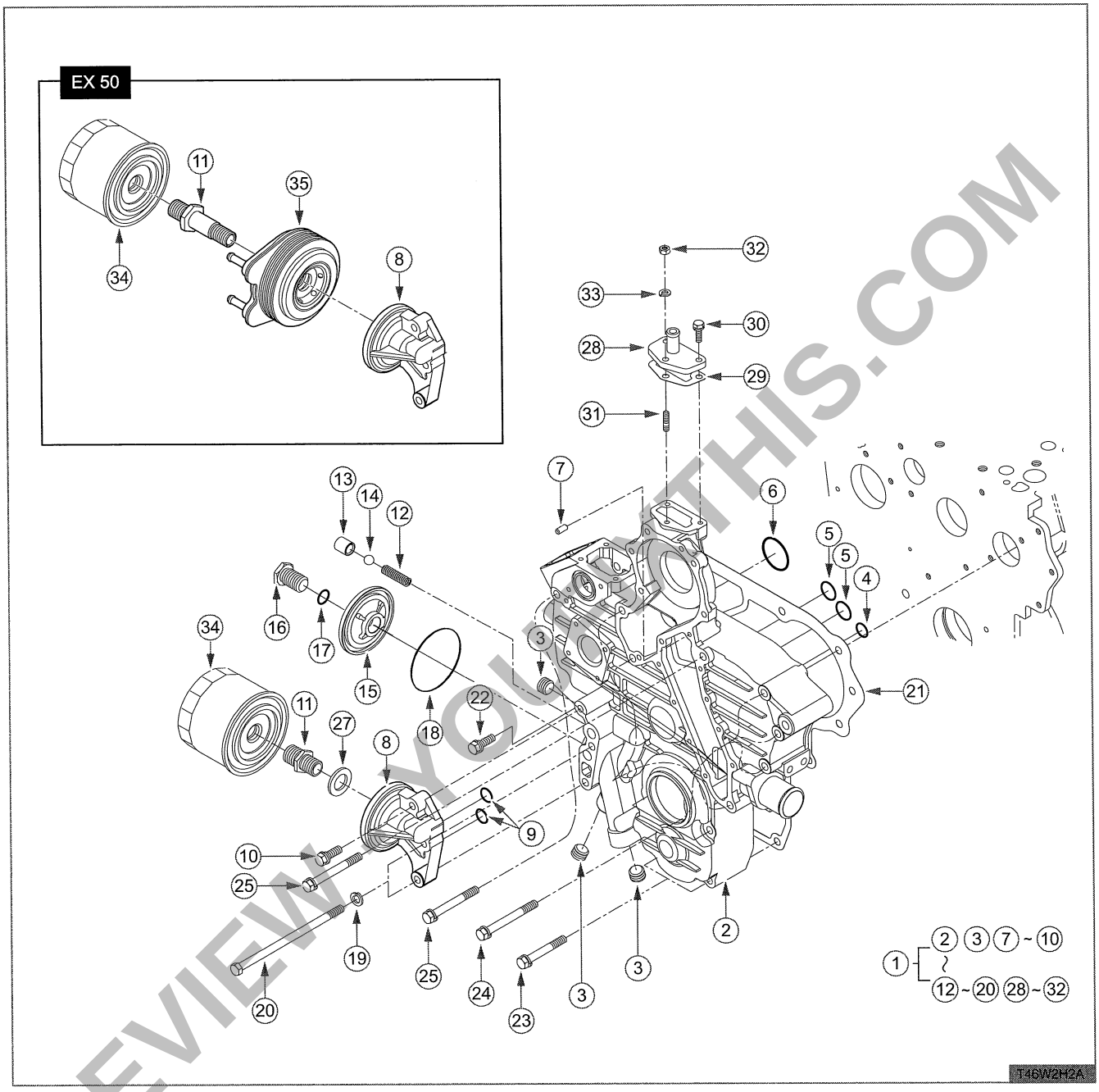
Mechanical type



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6.4 E040 GEAR CASE



COMPONENTS

(1) Gear case assembly
(2) Gear case
(3) Plug
(4) O-ring
(5) O-ring
(6) O-ring
(7) Straight pin
(8) Oil filter support
(9) O-ring
(10) Bolt with captive washer
(11) Connecting pipe
(12) Spring
(13) Belt seat
(14) Steel ball
(15) Cover
(16) Cover bolt
(17) O-ring
(18) O-ring
(19) Spring washer
(20) Bolt
(21) Gear case gasket
(22) Bolt with captive washer
(23) Bolt with captive washer
(24) Bolt with captive washer
(25) Bolt with captive washer
(26) Bolt with captive washer
(27) Plain washer
(28) Coolant return flange
(29) Gasket
(30) Bolt with captive washer
(31) Stud bolt
(32) Nut
(33) Spring washer
(34) Oil filter
(35) Oil cooler

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7. TIRES

7.1 SPECIFIED INFLATION PRESSURE

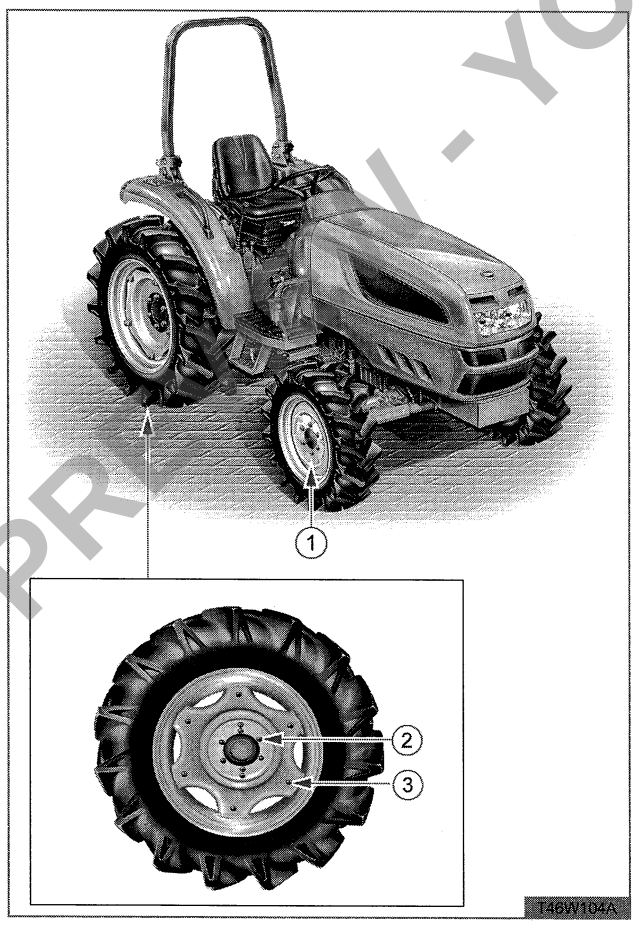
Tires		EX35		EX40/45/50	
		Front	Rear	Front	Rear
Agricultural	Type	7-16/6PR	12.4-24/6PR	8-16/6PR	13.6/24/6PR
	Inflation pressure	2.8 kg/cm^2 276 Kpa 40 psi	1.7 kg/cm^2 165 Kpa 24 psi	2 kg/cm^2 193 Kpa 28 psi	1.5 kg/cm^2 152 Kpa 22 psi
Industrial	Type	27x10.5-15/6PR	43x16-20/4PR	10x16.5/6PR	14.9x24/8PR
	Inflation pressure	3.2 kg/cm^2 310 Kpa 45 psi	1.4 kg/cm^2 138 Kpa 20 psi	3.2 kg/cm^2 310 Kpa 45 psi	2.5 kg/cm^2 241 Kpa 35 psi
Turf	Type	27x8.5-15/4PR	41x14-20/4PR	29x12.5-15/4PR	21.5L-16.1/4PR
	Inflation pressure	2.1 kg/cm^2 207 Kpa 30 psi	1.8 kg/cm^2 172 Kpa 25 psi	2.1 kg/cm^2 207 Kpa 30 psi	0.8 kg/cm^2 83 Kpa 12 psi

REMARK

- **Maintain the maximum pressure in front tires, if using a front loader.**

7.2 TIGHTENING TORQUE FOR TIRE BOLTS

Wheel bolts and rim bolts



A. TIGHTENING TORQUE

Item		Tightening torque
Front wheel	wheel bolt & nut (1)	274.5 ~ 318.7 Nm 28 ~ 32.5 kgf-m 202.5 ~ 235.1 lb-ft
Rear wheel	wheel bolt & nut (2)	274.5 ~ 318.7 Nm 28 ~ 32.5 kgf-m 202.5 ~ 235.1 lb-ft
	Rim bolt & nut (3)	259.8 ~ 304 Nm 26.5 ~ 31 kgf-m 191.6 ~ 224.2 lb-ft

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4. TROUBLESHOOTING

Symptom	Causes	Remedy
Engine Does Not Start	• No fuel	Add fuel
	• Air in fuel system	Bleed air
	• Water in fuel system	Change fuel and repair or flush fuel system
	• Clogged fuel pipe	Clean
	• Clogged fuel filter	Clean or replace
	• Excessively high viscosity of fuel or engine oil at low temperature	Use the specified fuel or engine oil
	• Fuel with low cetane number	Use the specified fuel
	• Fuel leak due to loose injection pipe mounting nut	Tighten nut
	• Incorrect injection timing	Adjust
	• Worn fuel camshaft	Replace
	• Clogged injection nozzle	Clean or replace
	• Defective fuel injection pump	Repair or replace
	• Defective fuel transfer pump	Repair or replace
	• Seizure of transfer pump, defective piston, cylinder bore or bearing	Repair or replace
	• Compression leak from cylinder	Replace head gasket, tighten cylinder head screws, glow plug and nozzle holder
	• Improper valve seating, damaged valve spring, valve seized	Repair or replace
	• Improper valve timing	Correct or replace timing gear
	• Worn piston ring and bore	Repair or replace
	• Excessive valve clearance	Adjust
Start motor Does Not Run	• Discharged battery	Charge
	• Defective start motor	Repair or replace
	• Defective key switch	Repair or replace
	• Disconnected wiring	Connect
Engine Running is Not Smooth	• Clogged or dirty fuel filter	Clean or replace
	• Clogged Air cleaner	Clean or replace
	• Fuel leak due to loose injection pipe mounting nut	Tighten nut
	• Defective fuel injection pump	Repair or replace
	• Incorrect nozzle opening pressure	Adjust or replace
	• Seized or clogged nozzle	Repair or replace
	• Clogged fuel overflow pipe	Clean or replace
	• Defective governor	Repair or replace
Either White or Blue Exhaust Smoke is Produced	• Excessive engine oil	Reduce to the specified level
	• Worn piston ring and bore or seized piston ring	Repair or replace
	• Incorrect injection timing	Adjust
	• Insufficient compression pressure	Adjust valve clearance
Either Black or Dark Gray Exhaust Smoke is Produced	• Overheat or overload	Reduce load
	• Low grade fuel used	Use the specified fuel
	• Clogged fuel filter	Clean or replace
	• Clogged Air cleaner	Clean or replace
Insufficient Output	• Incorrect injection timing	Adjust
	• Seized engine components	Repair or replace
	• Uneven fuel injection	Repair or replace the fuel injection pump
	• Insufficient nozzle injection	Repair or replace the nozzle
	• Compression pressure leak	Replace cylinder head gasket, check tightness of cylinder head screws and nuts, glow plug and nozzle holder

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3. SPECIFICATIONS

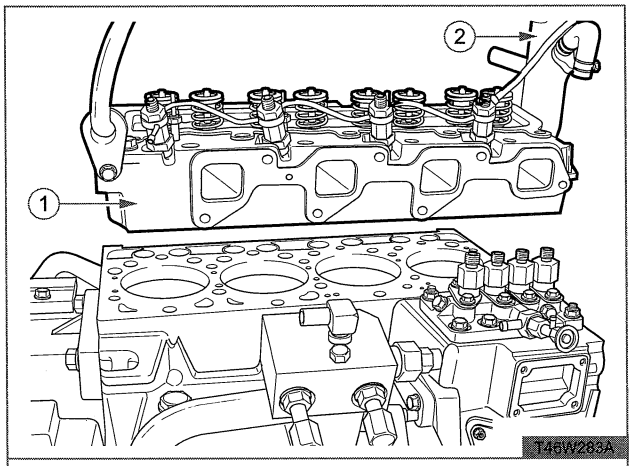
Model			EX35		EX40	
			Mechanical	HST	Mechanical	HST
Engine	Model		3B183LXM	3B183LXH	4A200LXM	4A200LXH
	Number of cylinders		3		4	
	Total displacement cc		1,826		1,999	
	Bore and stroke mm (in.)		87X102.4 (3.425X4.031)		83X92.4 (3.268X3.638)	
	Engine gross power HP (kw)		38 (28.3)		41 (30.5)	
	PTO power HP (kw)		28.5 (21.2)	27 (20.1)	34 (25.3)	32.5 (24.2)
	Rated revolution rpm		2,600		2,600	
Capacities	Fuel tank capacity u.s.gal (ℓ)		11.9 (45)		←	
	Transmission case u.s.gal (ℓ)		11.1 (42)	9.25 (35)	11.1 (42)	9.5 (36)
	Front axle u.s.gal (ℓ)		1.98 (7.5)		←	
Drive train	Clutch		Dry single plate clutch	-	Dry single plate clutch	-
	Transmission	Shuttle	Synchromesh, shuttle lever	Servo piston, twin pedals	Synchromesh, shuttle lever	Servo piston, twin pedal
		Main	Synchromesh, 4th	HST	Synchromesh, 4th	HST
		Range	Non-synchromesh, 3rd (4th as option)	Non-synchromesh, 3rd	Non-synchromesh, 3rd (4th as option)	Non-synchromesh, 3rd
		Speeds	12 x 12 (option: 24 x 24)	3 Range, continuously variable transmission	12 x 12 (option: 24 x 24)	3 Range, continuously variable transmission
	Ground speed (Tire for agricultural) km/h (mph)	Engine 2,600 rpm	24.7 (15.5)	23.2 (14.5)	25.3 (15.8)	23.7 (14.8)
		Engine (Max) 2,800 rpm	26.6 (16.6)	25 (15.6)	27.2 (17)	25.6 (16)
	4-wheel drive		Hydraulic powered dog clutch with rocker switch		←	
	Brake		Wet multiple plates		←	
	Differential lock		Standard for rear axle		←	
Tires	Agricultural	Front	7-16 / 6PR		8-16 / 6PR	
		Rear	12.4-24 / 6PR		13.6/24 / 6PR	
	Industrial	Front	27x10.5-15 / 6PR		10x16.5 / 6PR	
		Rear	43x16-20 / 4PR		14.9x24 / 8PR	
	Turf	Front	27x8.5-15 / 4PR		29x12.5-15 / 4PR	
		Rear	41x14-20 / 4PR		21.5L-16.1 / 4PR	
Hydraulic system	Pump capacity gpm (ℓ/min)		15.2 (57.8)		16.8 (63.9)	
	Steering		Non-load reaction type, full hydraulic		←	
	Hydraulic lift control		Position and draft control		←	
	3-point hitch		SAE Category I		←	
	Max. lifting capacity lbs. (kg)	24in.Behind	2,383 (1,081)		2,493 (1,131)	
		Lift link end	2,583 (1,172)		2,940 (1,334)	
PTO	Rear	Type	Rocker switch type, independent hydraulic multi disc clutch		←	
		PTO shaft	3/8″ 6 splines		←	
		Speed (PTO rpm/engine rpm)	540 / 2,520	540 / 2,500	540 / 2,520	540 / 2,500
	Mid (optional)	PTO shaft	16/32″ 15 splines		←	
		Speed (PTO rpm/engine rpm)	2,000 / 2,500	2,000 / 2,470	2,000 / 2,500	2,000 / 2,470
Min. turning radius (with one rear wheel braked) feet (m)			9.3 (2.85)		9.5 (2.91)	
Weight (with ROPS) lbs. (kg)			1,667 (753)	1,664 (754)	1,780 (807)	1,745 (791)
Max. Drawbar load lbs. (kg)			1,433 (650)			
Max. Trailer loading weight lbs. (kg)			7,716 (3,500)			

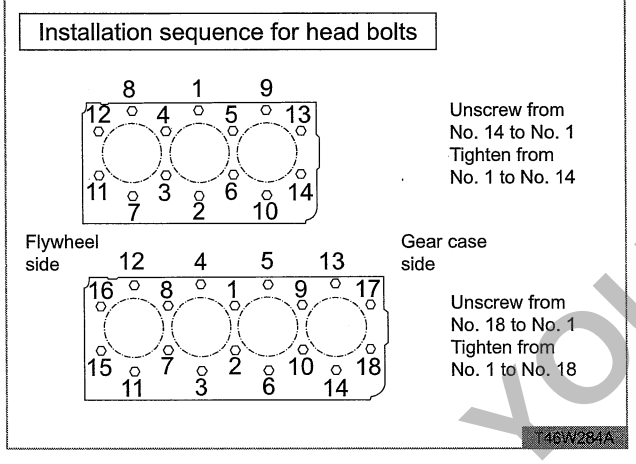
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7.7 CYLINDER HEAD

7.7.1 CYLINDER HEAD REMOVAL





(1) Cylinder head (2) Coolant flange

1. Loosen the head bolts in the reverse sequence as shown in the figure.
   (Follow the sequence in the figure when tightening them.)
2. Lift it slightly with a hoist by using the hook.
3. Remove the coolant flange (2) if necessary.
4. Remove the tappets from the cylinder block.

CAUTION

- **Mark the cylinder number to the tappets to prevent them from interchanging.**

7.7.2 CYLINDER HEAD INSTALLATION

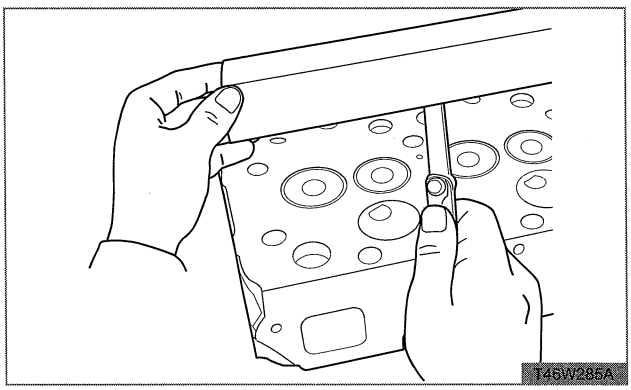
1. Apply the liquid gasket (Three bond 1215 or equivalent) on both sides of coolant flange gasket.
2. Always replace the head gasket with a new one. Pay particular attention to its direction and orientation.
3. Remove any gasket residue out of mating surfaces of the cylinder head and cylinder block before installing the new cylinder head gasket. Be careful not to get the residue enter into the block or the head. (Use a vacuum cleaner to clean the residue.)
4. Before installing the tappets, apply engine oil around them.

IMPORTANT

- **Apply the oil to the thread of head bolts and tighten them to the specified torque in several steps and the specified sequence shown in the figure.**
- **Retighten them in 30 minutes after running the engine and adjust the valve clearance.**

Cylinder head bolts
Tightening torque .....103.0 ~ 107.9 Nm
10.5 ~ 11.0 kgf-m
75.9 ~ 79.6 lb-ft

7.7.3 CYLINDER HEAD SURFACE FLATNESS CHECK



1. Thoroughly clean the cylinder head surface.
2. Place a straight edge on the cylinder head and measure the clearance with a feeler gage as shown in the figure.
3. If the measured value exceeds the allowable limit, replace the cylinder head.

IMPORTANT

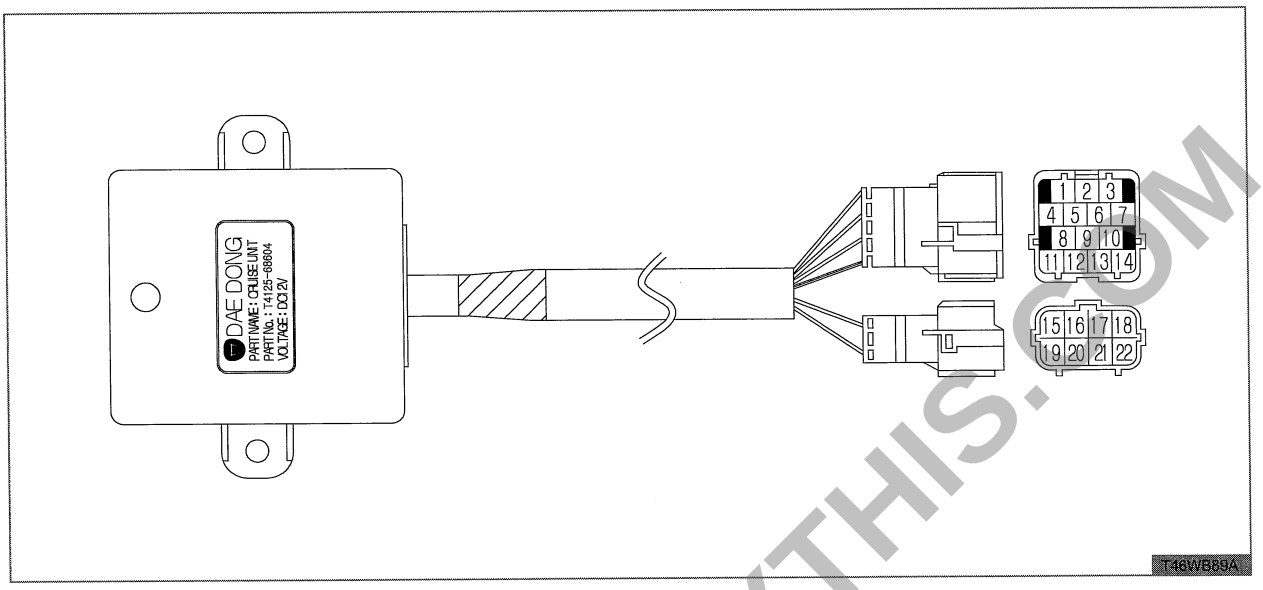
- **Do not place the straight edge on the combustion chamber.**

Allowable limit .....0.05 mm
0.0019 in.

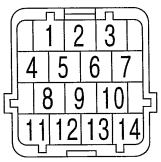
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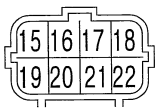
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4.26.4 PIN ARRANGEMENT OF CRUISE UNIT



No.	Signal	Wiring specification	Remarks
1	+12V	AVSS 0.85 R	
2	Cruise ON SW	AVSS 0.3 RB	
3	Cruise OFF SW	AVSS 0.3 Y	
4	Brake (one side) SW	AVSS 0.3 GY	
5	Brake (both sides) SW	AVSS 0.3 GR	
6	-	-	
7	Rear PTO signal	AVSS 0.3 LgR	
8	+5V output	AVSS 0.3 RW	
9	Cruise magnet output	AVSS 0.85 WB	
10	-	-	
11	GND	AVSS 0.85 B	
12	Range shift sensor (HST) input	AVSS 0.3 W	
13	-	-	
14	-	-	
15	Instrument panel H lamp output	AVSS 0.3 YB	
16	Charging signal	AVSS 0.3 GOr	
17	Instrument panel M lamp output	AVSS 0.3 YW	
18	Instrument panel L lamp output	AVSS 0.3 G	
19	-	-	
20	Instrument panel N lamp output	AVSS 0.3 GW	
21	Ignition relay	AVSS 0.3 Lg	
22	-	-	





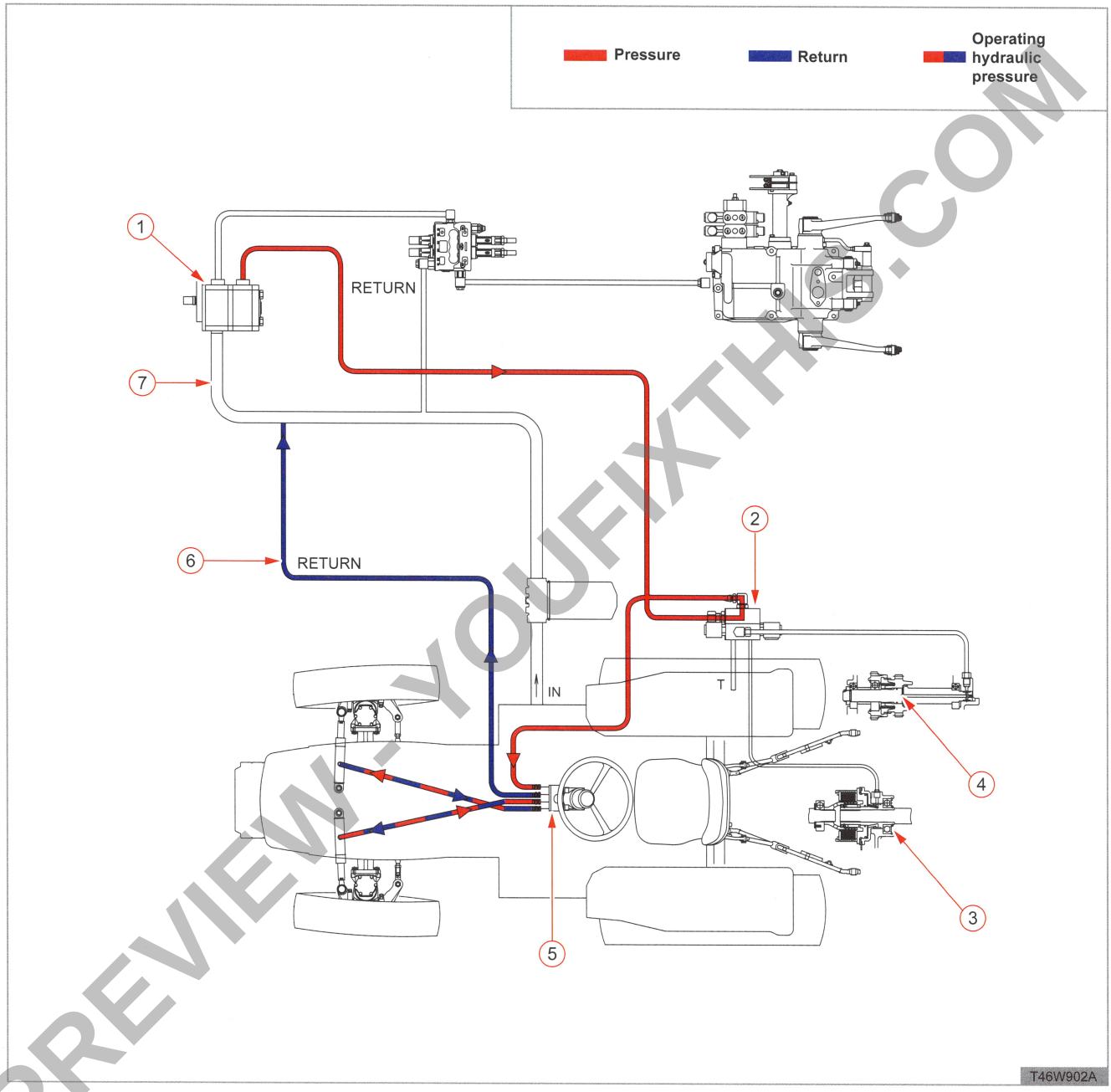
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2. OPERATING PRINCIPLE

2.1 DIAGRAM FOR STEERING OPERATION

▶ MECHANICAL



COMPONENTS

(1) Gear pump
(2) Modulator valve
(3) PTO clutch pack
(4) 4WD clutch
(5) Steering unit
(6) Steering return pip
(7) Suction pipe

The oil supplied from the gear pump (1) is sent to the modulator (2) to provide the pressure for the operation of PTO (3) or 4WD (4). Then, it is supplied to the steering unit (5).

The oil flows to the left or right steering cylinder depending on the rotated position of the steering wheel. Then, the other cylinder that is not supplied with oil is compressed by the tie rod. The oil is return to the gear pump suction line (7) through the return line (6) and recirculated.

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TABLE OF CONTENTS

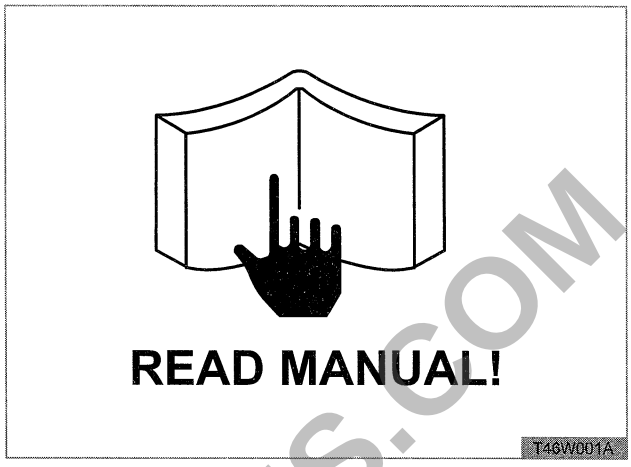
CHAPTER 0	SAFETY FIRST
CHAPTER 1	GENERAL
CHAPTER 2	ENGINE
CHAPTER 3	CLUTCH
CHAPTER 4	TRANSMISSION
CHAPTER 5	HST
CHAPTER 6	REAR AXLE
CHAPTER 7	BRAKE
CHAPTER 8	FRONT AXLE
CHAPTER 9	STEERING SYSTEM
CHAPTER 10	HYDRAULIC SYSTEM
CHAPTER 11	ELECTRIC SYSTEM
CHAPTER	INDEX

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1. FOR SAFETY

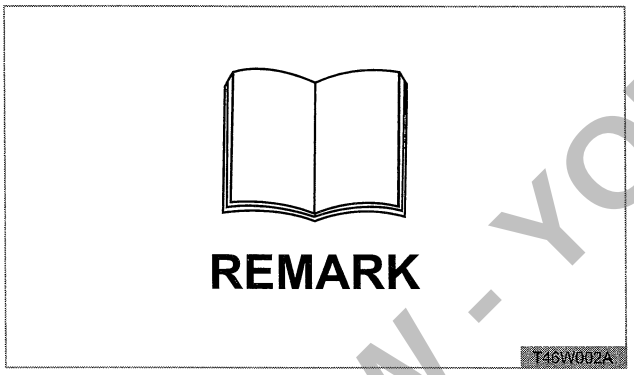
- Most accidents can be avoided if basic safety instructions and regulations are followed. Always follow the safety regulations and avoid any dangerous situation to prevent an accident.
- You can be unexpectedly injured if inspecting or servicing the tractor without full knowledge of it. Read the service manual carefully before starting servicing and follow the instructions for servicing, maintenance and inspection to prevent any injury.



1.1 ALERT SYMBOLS

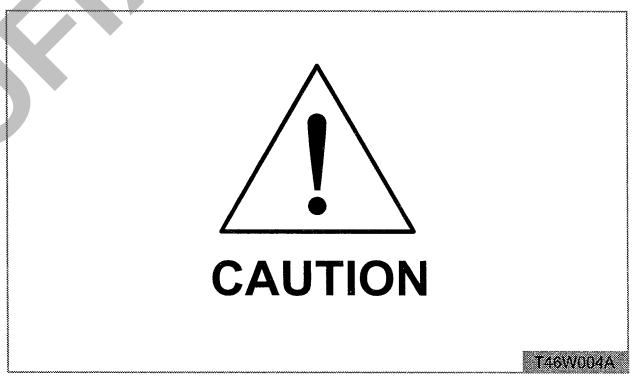
In this manual, the following safety-alert symbols are used. Their meanings are as follows:

▶ REMARK



- Broaden your knowledge with additionally supplied service information for optimal service.

▶ CAUTION



- This mark indicates potentially hazardous situation which, if not observed, may result in serious injury.

▶ IMPORTANT



- This mark indicates emphasis on information which can be confused when servicing. If this information is not carefully read and observed, the tractor cannot fully function or may be damaged.

▶ WARNING



- This mark indicates hazardous situation which, if not observed, may result in death or injury.

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NUMBER

2nd remote hydraulic valve installation (optional) 10-72
3-point connecting system 1 (exploded view)... 10-58
3-point connecting system 2 (exploded view)... 10-59
3 cylinders 2-45
4 cylinders 2-44
4P relay test..... 11-106
4WD switch..... 11-114
5P relay test..... 11-105

A

A series engine (4A200, 4A220)..... 2-11
AC generator (exploded view)..... 2-67
AC generator 11-129
Adjusting the operating force of control lever ... 10-37
Adjusting the position control lever..... 10-35
Adjusting the sensitivity of hydraulic lifting arm 10-37
Alert symbols 0-2
American standard screws, bolts and nuts with UNC or UNF threads..... 1-21
Assignment standard for engine model code 2-4
Auxiliary double acting valve 10-21
Avoid fires..... 0-4
Axle case support shimming..... 8-15

B

B series engine (3B183, 4B243)..... 2-16
Backlash for differential pinion and differential side gear 8-12
Backlash for differential pinion and side gear..... 6-6
Backlash for spiral bevel pinion and 23 spiral bevel gear 8-12
Backlash for spiral bevel pinion and ring gear..... 6-8
Bar code for engine number (B) 2-3
Basic operating principle of brake 7-2
Basic principle of governor system..... 2-38
Basic principle of HST 5-5
Battery 11-3
Bevel gear case (exploded view)..... 8-21
Bevel gear shaft (exploded view) 8-22
Bevel pinion shaft (exploded view)..... 8-19
Bite type nut assembly 10-75
Bleeding air from HST component 5-26
Bleeding the fuel system 2-33
Body and power train system 2-21
Bolts..... 1-22
Brake case (35 horsepower) (exploded view) 7-6
Brake case (40~50 horsepower) (exploded view) 7-7
Brake horse power (HP)..... 2-10
Brake pedal (HST) (exploded view)..... 7-8
Brake pedal (mechanical) (exploded view)..... 7-9
Brake pedal free play..... 7-5
Brake switch 11-112
Braking force for forward/reverse driving..... 7-3
Bubble test for radiator 2-48

C

Calculation for rear PTO and mid PTO..... 4-14
Calculation for relative speed ratio of front wheels 1-13
Calculation of driving speed 1-10
Camshaft (exploded view)..... 2-57
Camshaft 2-22
Cases for HST model 4-40
Cases for mechanical model 4-17
Cause of battery expiration..... 11-3
Causes for blown fuse 11-5
Cautions for high pressure hoses..... 0-5
Cautions when handling the battery 0-5
Cautions when handling tires 0-8
Charge pump location 5-7
Charge relief pressure 5-22
Charge relief valve..... 5-8
Charging system..... 11-31
Check for clutch disc wear..... 3-6
Checking circuits 11-6
Circuit and component location of electric system 11-11
Circuit diagram for cruise unit..... 11-118
Circuit diagram of electric system..... 11-11
Clean working area..... 0-3
Clearance of brake lamp switch 7-5

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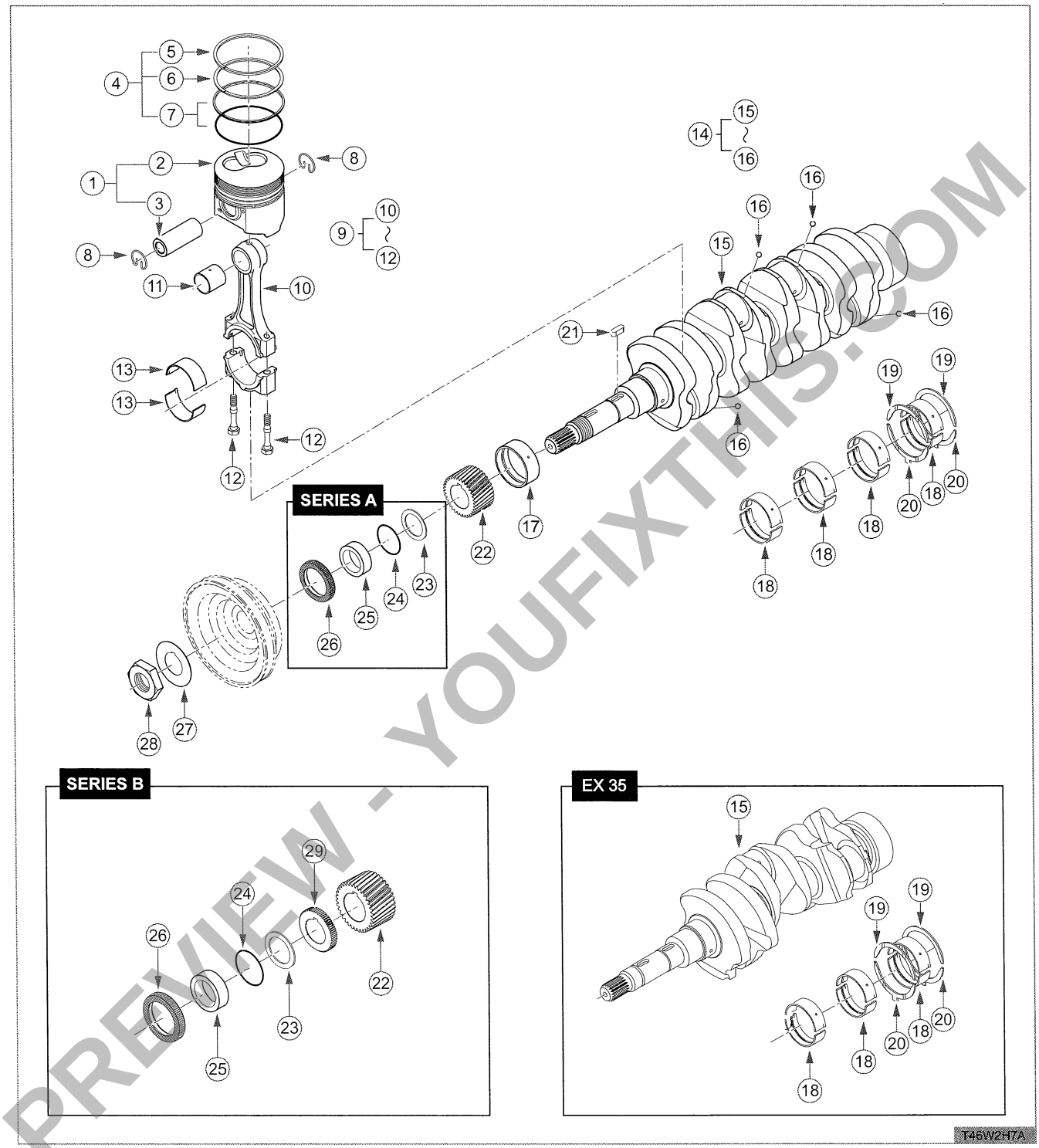
(4A200, 4A220)

Item			Specification	Allowable limit
E. Valve spring	Free length		41.7 ~ 42.2 mm (1.6417 ~ 1.6614 in.)	41.2 mm (1.6220 in.)
	Load after assembled / Length after assembled		12.0 kgf / 35.15 mm (26.5 lbs / 1.3839 in.)	10.2 kgf / 35.15 mm (22.5 lbs / 1.3839 in.)
	Squareness		-	1.0 mm (0.039 in.)
F. Rocker Arm	Rocker arm shaft O.D.		18.955 ~ 18.980 mm (0.7463 ~ 0.7472 in.)	-
	Rocker arm bushing I.D.		19.000 ~ 19.025 mm (0.7480 ~ 0.7490 in.)	-
G. Tappet	Clearance between tappet and guide		0.020 ~ 0.062 mm (0.00079 ~ 0.00244 in.)	0.07 mm (0.0028 in.)
	Tappet O.D.		23.959 ~ 23.980 mm (0.94327 ~ 0.94410 in.)	-
	Tappet guide I.D.		24.000 ~ 24.021 mm (0.94488 ~ 0.94571 in.)	-
H. Camshaft	Camshaft alignment		0.01 mm (0.0004 in.)	0.05 mm (0.0020 in.)
	Cam height	IN.	33.59 mm (1.3346 in.)	33.54 mm (1.3205 in.)
		EX.	33.69 mm (1.3268 in.)	33.64 mm (1.3244 in.)
	Clearance between camshaft		0.050 ~ 0.091 mm (0.00197 ~ 0.00358 in.)	0.15 mm (0.0059 in.)
	Camshaft journal O.D.		39.934 ~ 39.950 mm (1.57220 ~ 1.57283 in.)	39.88 mm (1.5701 in.)
	Camshaft counter bore I.D.		40.000 ~ 40.025 mm (1.57480 ~ 1.57579 in.)	-
	Clearance between camshaft gear (axial direction)		0.07 ~ 0.22 mm (0.003 ~ 0.009 in.)	-
I. Timing Gear	Timing gear backlash		0.04 ~ 0.11 mm (0.0016 ~ 0.0043 in.)	0.15 mm (0.0059 in.)
	Idle gear side clearance		0.20 ~ 0.51 mm (0.0079 ~ 0.0201 in.)	0.9 mm (0.035 in.)
	Clearance between Idle gear shaft and idle gear bushing		0.025 ~ 0.066 mm (0.00098 ~ 0.00250 in.)	0.1 mm (0.0039 in.)
	Idle gear shaft O.D.		37.9590 ~ 37.9950 mm (1.49445 ~ 1.49508 in.)	-
	Idle gear bushing I.D.		38.000 ~ 38.025 mm (1.49608 ~ 1.49705 in.)	-

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6.9 E110 PISTON CRANKSHAFT



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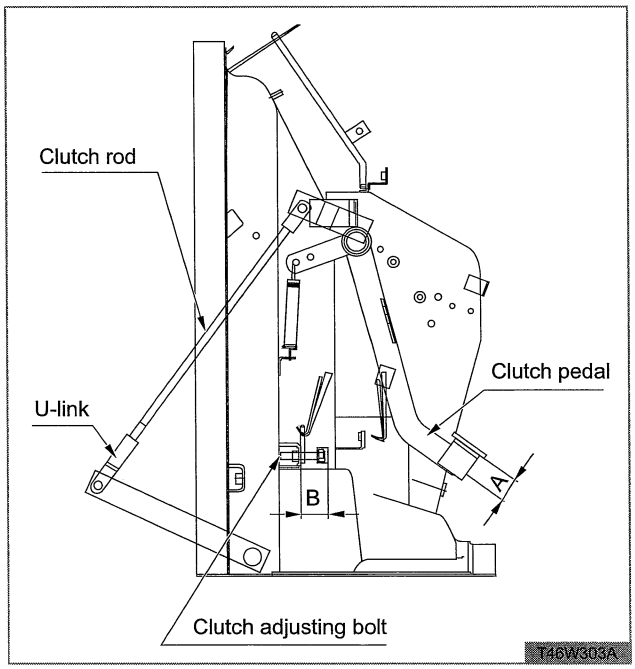
COMPONENTS

(1) Piston assembly
(2) Piston
(3) Piston pin
(4) Piston ring assembly
(5) Piston ring 1
(6) Piston ring 2
(7) Oil ring assembly
(8) Piston pin snap ring
(9) Connecting rod assembly
(10) Connecting rod
(11) Piston pin bushing
(12) Connecting rod bolt
(13) Crank pin metal
(14) Crankshaft assembly
(15) Crankshaft
(16) Filling plug
(17) Crankshaft metal 1
(18) Crankshaft metal 2
(19) Side metal 1
(20) Side metal 2
(21) Key
(22) Crankshaft gear
(23) Oil slinger
(24) O-ring
(25) Space cylinder
(26) Oil seal
(27) Crankshaft washer
(28) Crankshaft nut
(29) Oil pump drive gear

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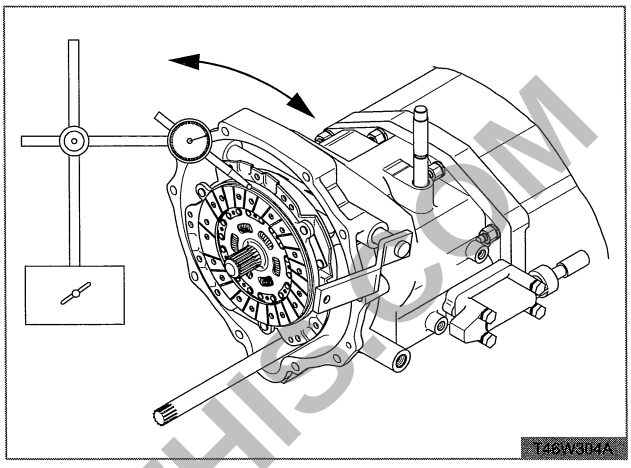
4. MEASUREMENT AND ADJUSTMENT

4.1 CLUTCH PEDAL PLAY AND STOPPER BOLT



1. Press the clutch pedal by hand.
   - Using push-pull gauge, apply 4 ~ 6 kgf of force when pressing it.
2. Check if the clutch pedal free play (A) is 20 ~ 30 mm (0.787 ~ 1.181 in.).
3. Adjust the pedal play by adjusting the U-link of the clutch rod.
4. Adjust the length of the stopper bolt (B) to 30 mm (1.181 in.).

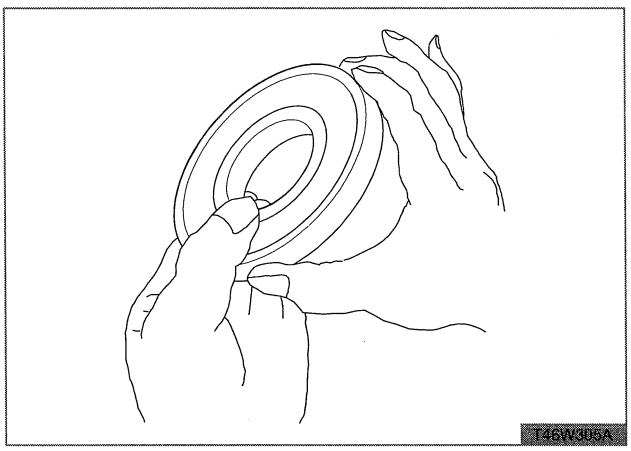
4.2 PLAY BETWEEN CLUTCH DISC SPLINE BOSS AND GEAR SHAFT



1. Install the gear shaft with clutch disc.
2. With the gear shaft locked, rotate the disc slightly and measure the play at outer end of disc.
3. If the measured value exceeds the allowable limit, replace it or its related shafts.

Play at outer end of disc
radial free play .....2.0 mm (0.079 in.) or less

4.3 THRUST BALL BEARING



1. Check to see if the contact surface is worn excessively.
2. With the inner ring held and outer ring loaded, check for abnormal noise or operation.
3. If faulty, replace it.

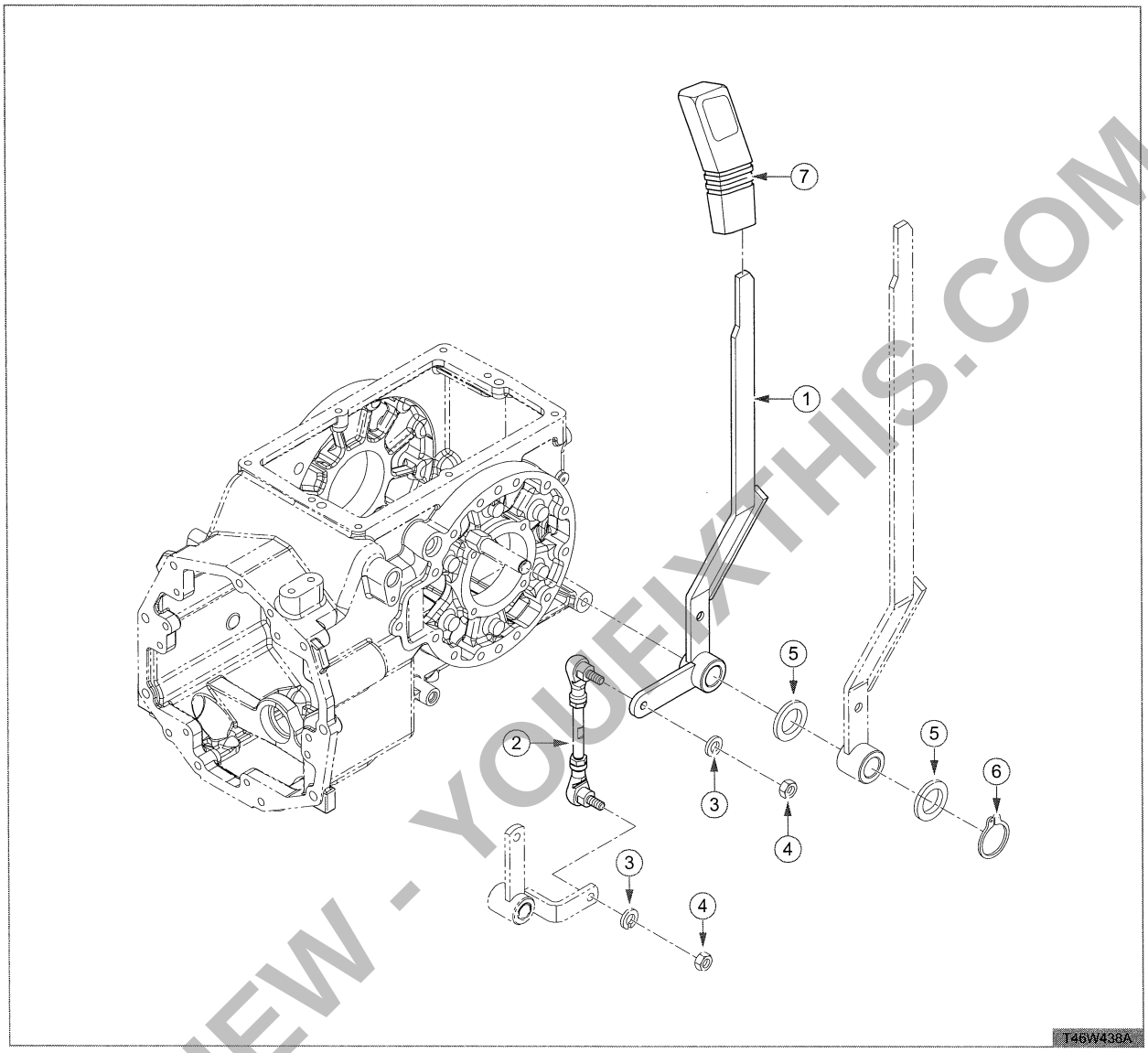
⚠ CAUTION

- **When assembling the bearing, make sure the outer wheel is not shocked.**

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H. T395A CREEP LEVER



COMPONENTS

(1) Creep lever
(2) Rod 2
(3) Spring washer
(4) Nut
(5) Plain washer
(6) Snap ring
(7) Handle

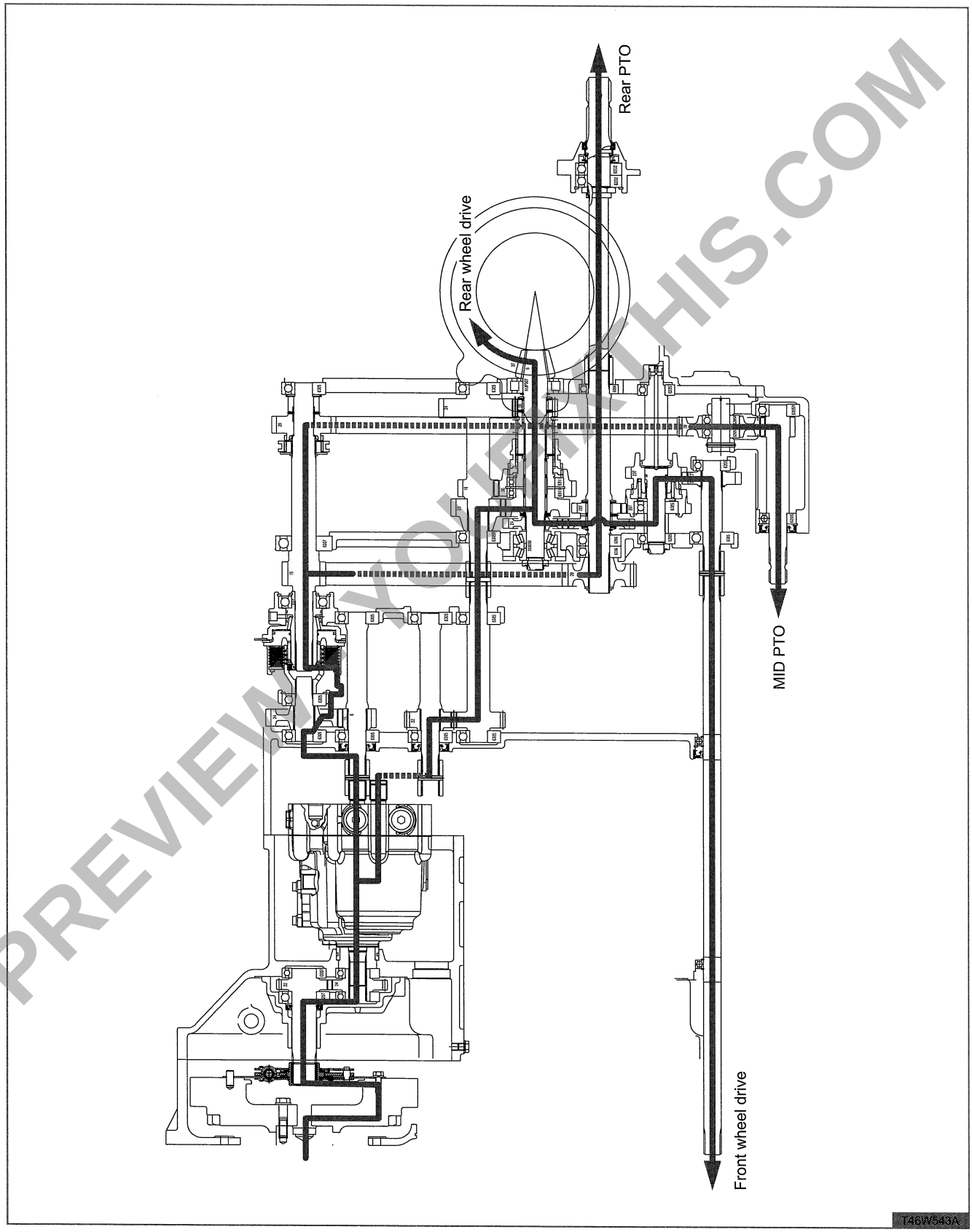
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2. OPERATING PRINCIPLE

2.1 STRUCTURE AND FUNCTION OF HST

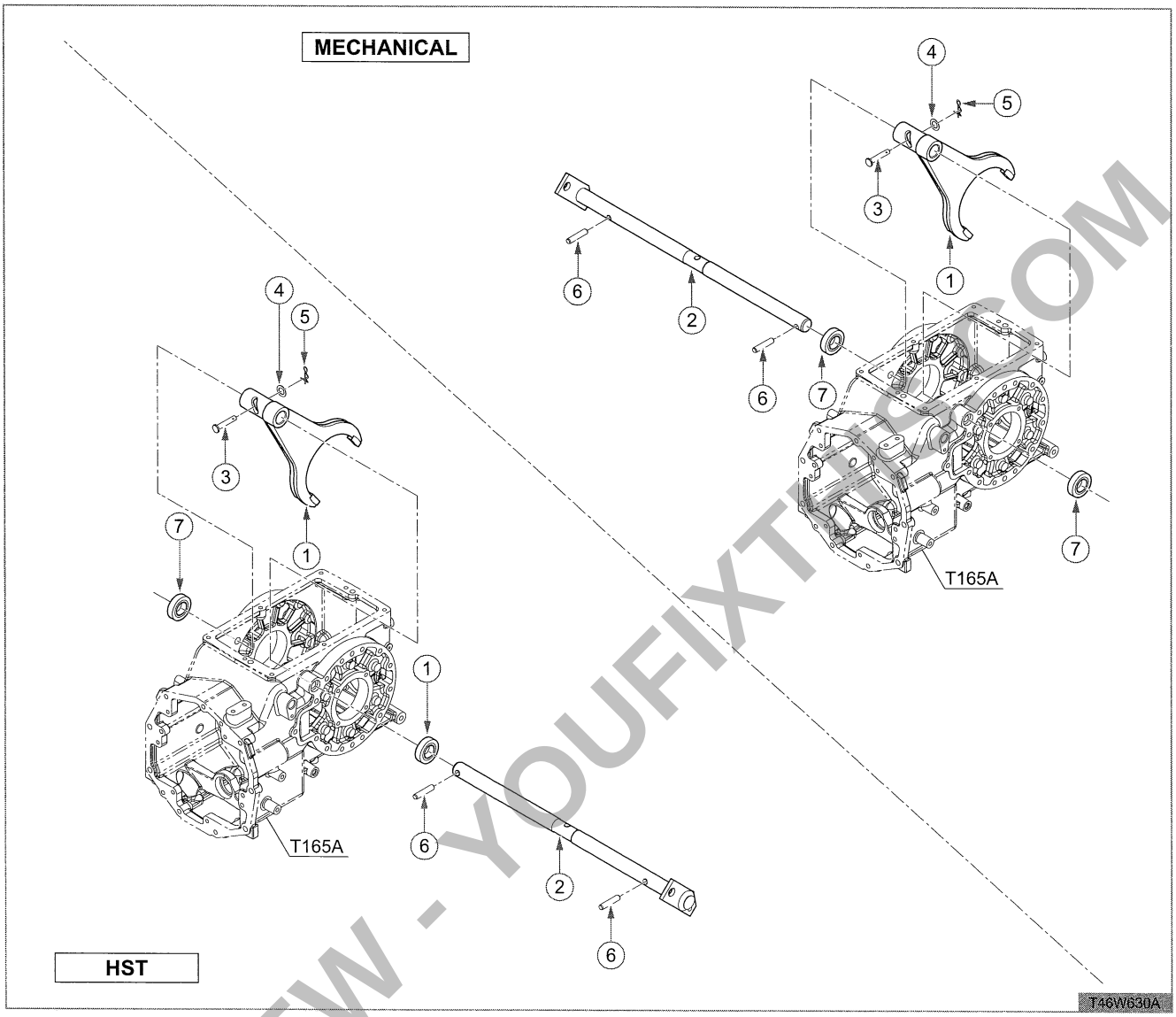
▶ POWER TRAIN OF HST TRACTOR



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5.3 T445A DIFFERENTIAL LOCK FORK



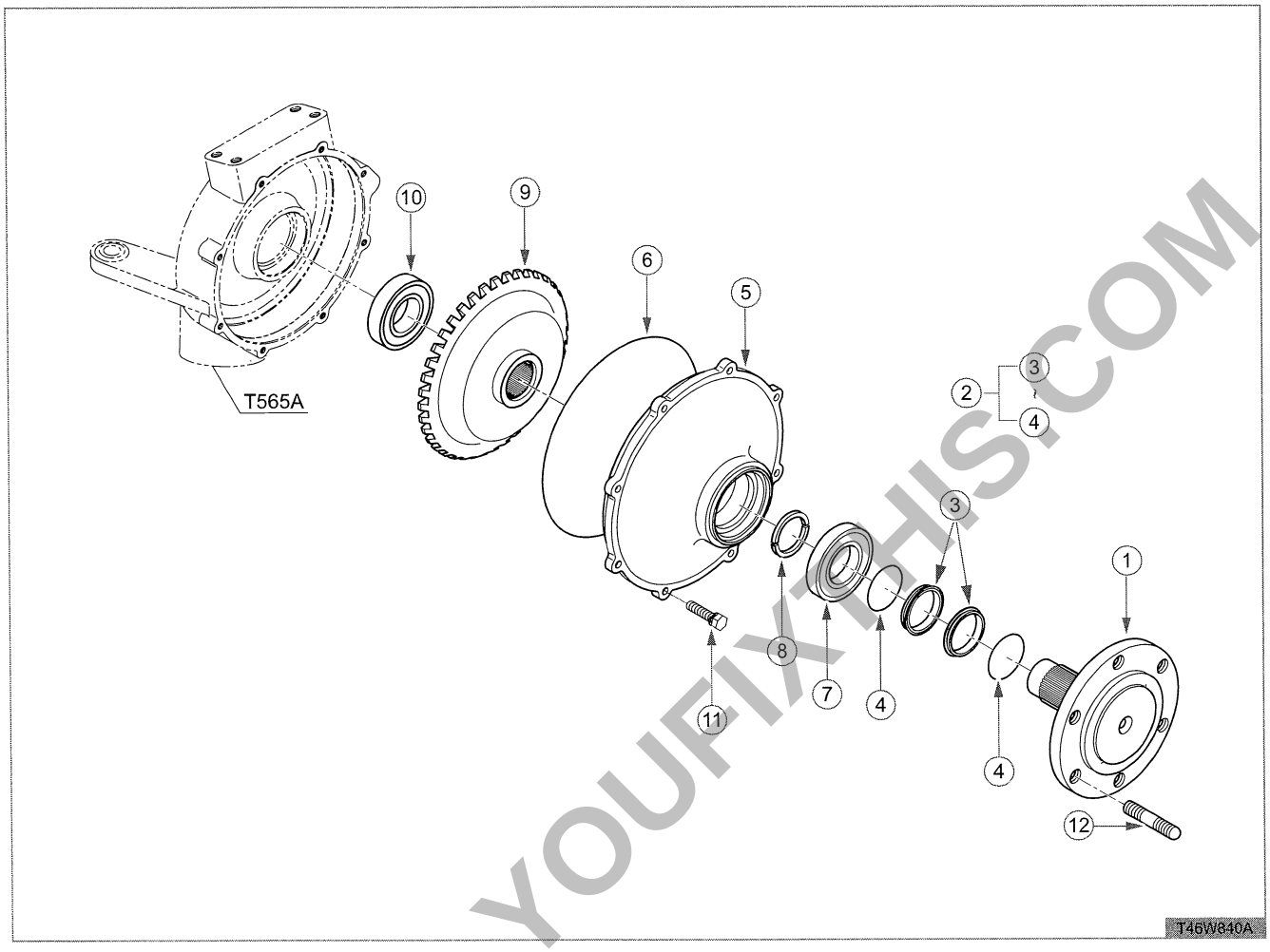
COMPONENTS

(1) Differential lock fork
(2) Differential lock fork shaft
(3) Pin
(4) Plain washer
(5) Snap pin
(6) Spring pin
(7) Oil seal

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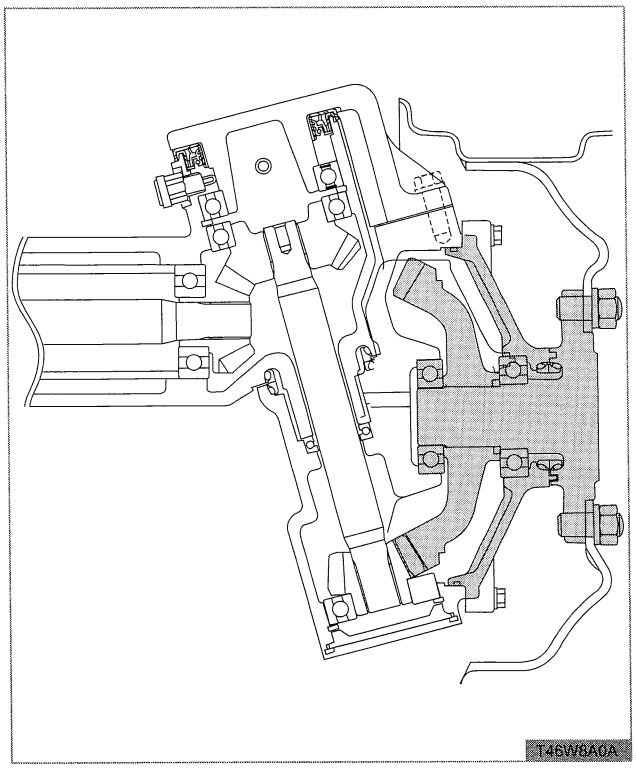
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5.9 T575A FRONT AXLE



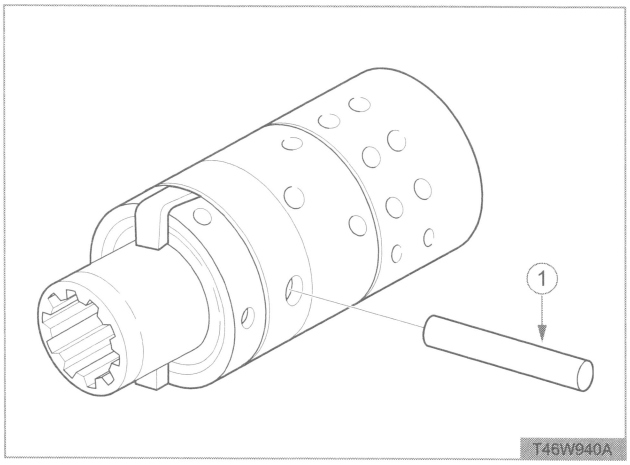
COMPONENTS

(1) Front axle
(2) Floating seal
(3) Seal ring
(4) O-ring
(5) Front axle cover
(6) O-ring
(7) Ball bearing
(8) Snap ring
(9) 40 bevel gear
(10) Ball bearing
(11) Bolt with captive washer
(12) Stud bolt
(12) Stud bolt



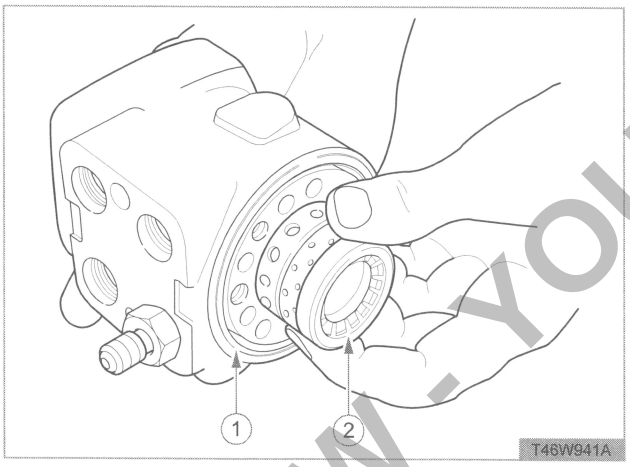
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(1) Pin

5. Position the spool and sleeve so that their ends are at the same height and insert the pin (1) through the assembly until its ends are below the surfaces of the sleeve.

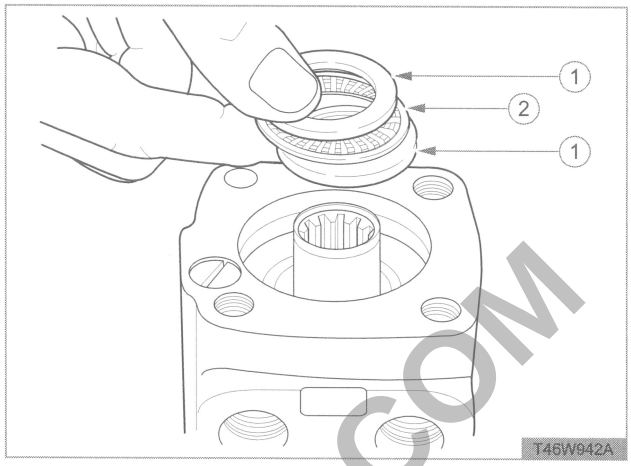


(1) Steering motor housing (2) Sleeve

6. Place the spool and sleeve (2) so that the pin is parallel with the bench and carefully insert the assembly into the bottom of the steering motor housing (1).

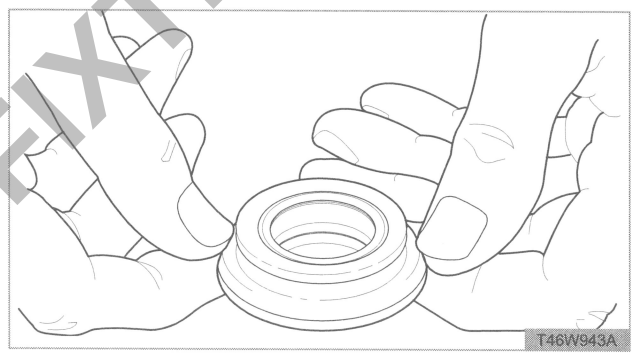
   Rotate the assembly slightly while inserting it for ease installation.

   Position the spool and sleeve so that their ends are flush with the bottom of steering motor housing (1) and make sure that the assembly can turn freely in the housing.

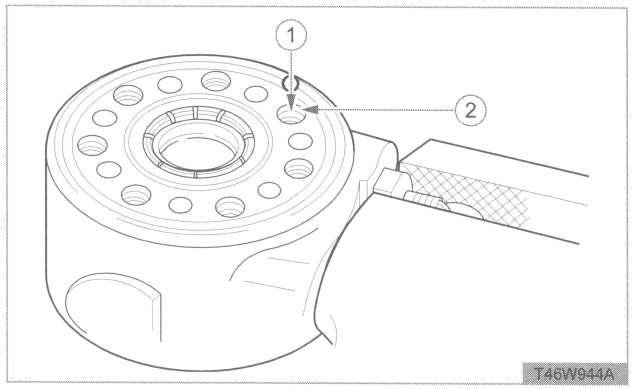


(1) Thrust bearing race (2) Thrust bearing

7. Insert the thrust bearing race (1) and the thrust bearing (2) and make sure that the opposite thrust bearing race (1) is seated on the sleeve and spool.



8. Install a new O-ring, dust seal and oil seal in the gland bushing, and then insert the bushing into the housing while rotating it.
9. Install the retaining ring in the housing groove.



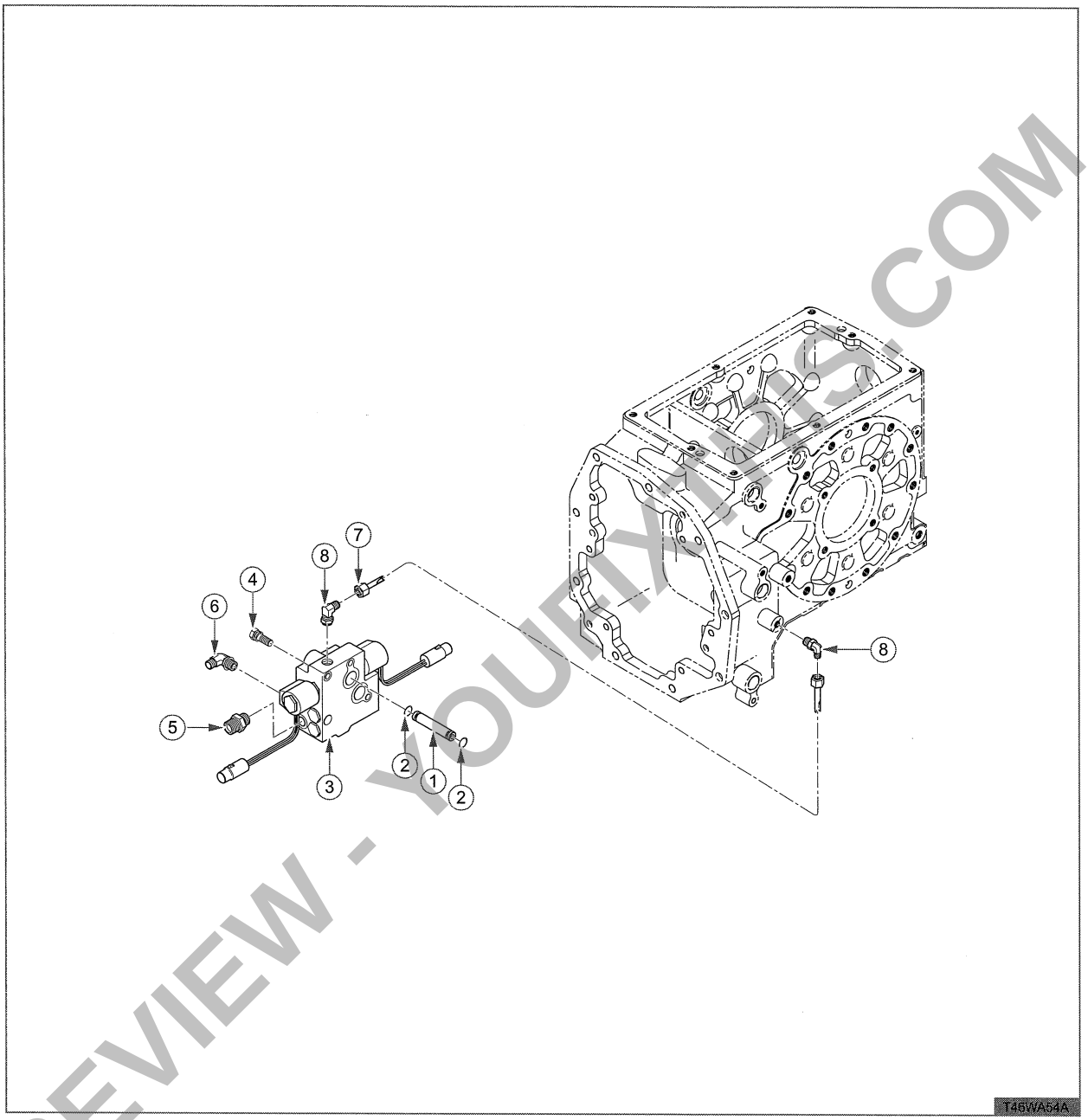
(1) Check valve ball (2) Retainer bolt hole

10. Grip the bottom end of steering motor housing with a vise. To avoid damaging the steering motor, use soft-faced jaw and do not apply excessive force.
11. Position the spool and sleeve assembly below the bottom face of the motor housing, and then install the check valve ball (1) into its retainer bolt hole (2).

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5.6 T745A MODULATOR VALVE



COMPONENTS

(1) Connecting pipe
(2) O-ring
(3) Modulator valve assembly
(4) Bolt with captive washer
(5) Connecter
(6) Elbow
(7) Hydraulic tube for front wheel drive
(8) Elbow

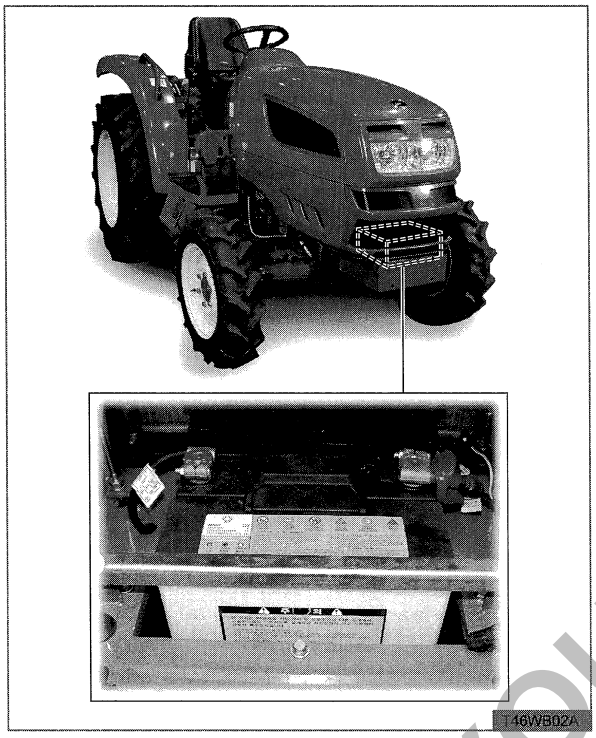
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1. GENERAL INFORMATION

1.1 BATTERY

1.1.1 DEFINITION



The battery for the tractor is a sealed lead-acid battery which is rechargeable.

The condition that the electric energy is produced from the battery is called "electric discharge" and the current discharged in this case is called "discharge current". And, the condition that the electric energy is supplied to the battery is called "recharge" and the current supplied in this case is called "charging current".

The alternator supplies the battery with the electric energy.

This tractor is equipped with 12 V battery with minimum cold cranking ability of 630 A at -18°C.

The battery is located under the hood in front of the radiator. It should be firmly fixed with no corrosion.

If needed, clean the battery surface with baking soda and water and be careful not to get undistilled water into the battery.

After cleaning, rinse the battery and apply a small amount of grease to prevent the terminals from corroding.

The battery should maintain its charging status even at the freezing point. If the battery is discharged or the battery fluid is insufficient, the electrolyte may be diluted or frozen. This may lead to damage to the case. If any water should be refilled, use only distilled water.

Add water before using the tractor. This lets the electrolyte mix with water so that water is not frozen.

1.1.2 CAUSE OF BATTERY EXPIRATION

The causes for battery failure can be divided into the following three parts:

A. OVERLY DISCHARGED

The specific gravity of electrolyte is too low and the terminal voltage is not measurable.

CAUSES

- Self-discharge:
  If the battery is left unused for 2 ~ 3 months, it will fully discharge.
- Closed circuit (battery surface):
  Due to the electrolyte or water on the battery cover, a closed circuit is formed between the positive and the negative terminals and, consequently, the battery will fully discharge.

B. OVER CHARGING

If the battery is charged for over the specified time, the electrolyte's temperature rises and the amount of electrolyte decreases.

(If this happens frequently, the battery life is shortened.)

C. BATTERY LIFE

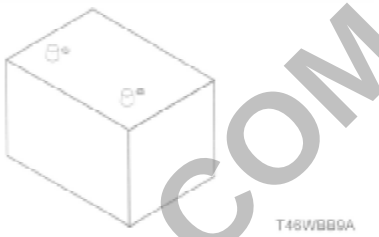
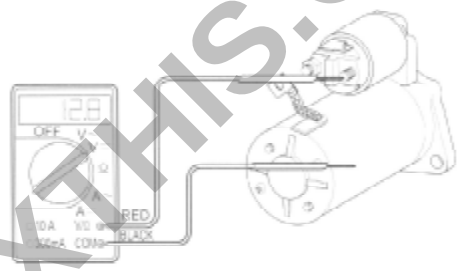
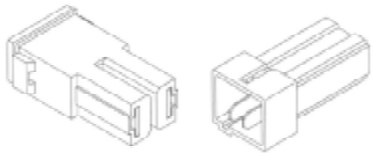
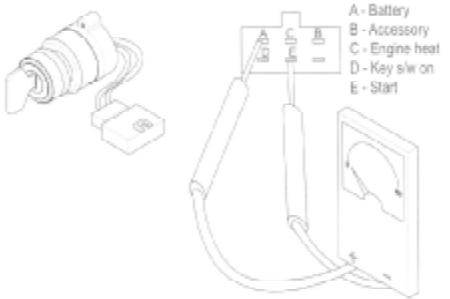
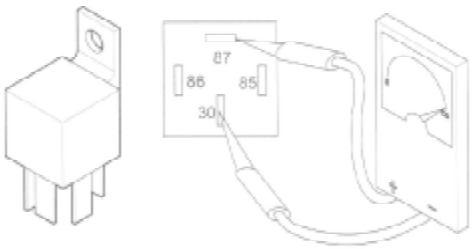
If the charged and discharged conditions are repeated, the amount of activated material and the specific gravity decreases due to the chemical reaction among the positive terminal, negative terminal and electrolyte.

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E. TROUBLESHOOTING

When the system is not preheated automatically

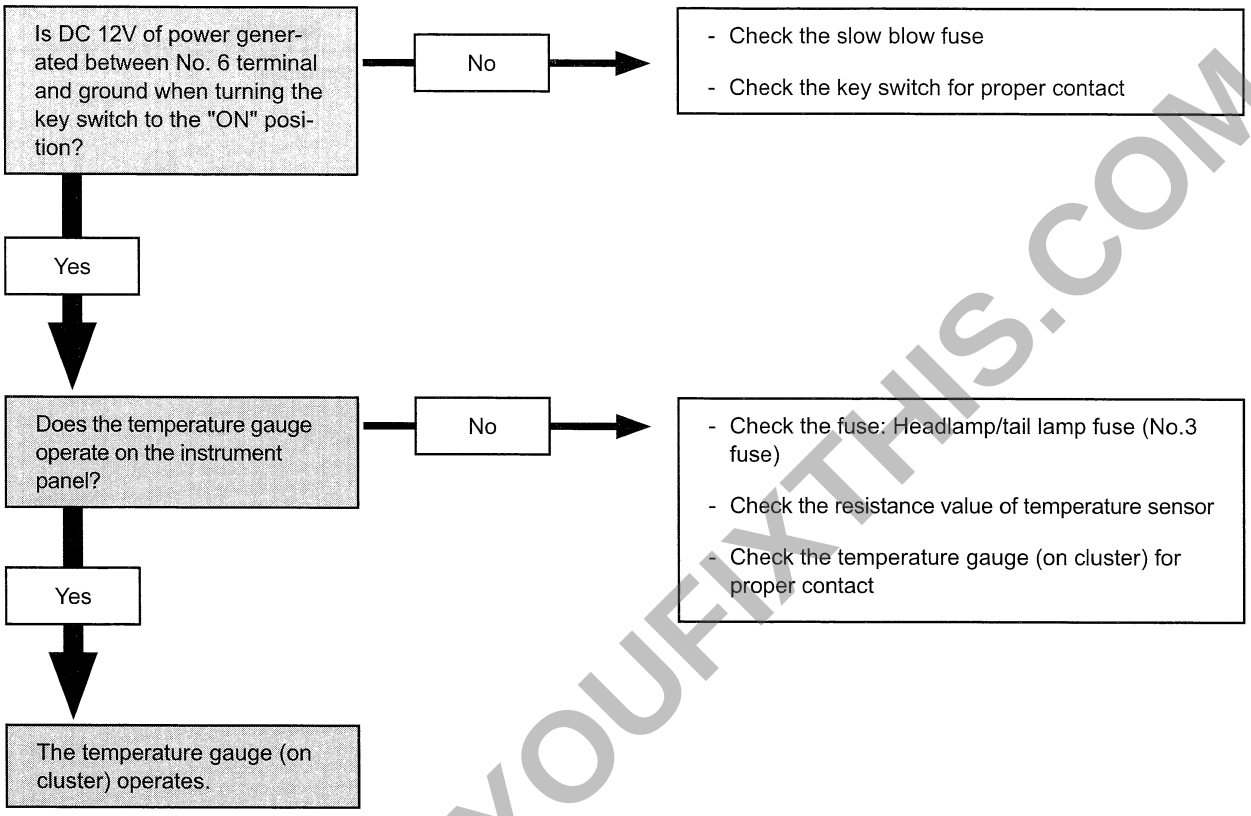
Check point	Check method	Remarks
1. Check the battery voltage	- Measure the voltage between battery (+) and (-) terminals using a tester - Result: 11.8 ~ 12.9 V However, the voltage may be over this range if it is measured immediately after turning the engine off. - Continue to the next step.	 T46WBB9A
2. Battery terminal of start motor	1. Proper connection of battery cable - The voltage between start motor's M terminal and chassis should be approximately same as the battery voltage. 2. When voltage is not supplied - Check proper connection of battery cable - Check the corrosion - Continue to the next step.	 T46WBC0A
3. Slow blow fuse	- Fuse engagement - Short circuit of main fuse Rated capacity: 60A	 BP 1 T46WBC1A
4. Key switch	Check proper connection "ON" position: A-B-D "PREHEAT" position: A-C-D	 T46WBC2A
5. Preheat relay	1. With key ON, connect 12 V to No. 85 and 86 terminals No. 87 and 30 terminals connected (closed circuit) 2. Not connecting 12 V to No. 85 and 86 terminals No. 87 and 30 terminals open circuit	 T46WBC3A

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ELECTRIC

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Diagnosis sequence



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