# 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.**

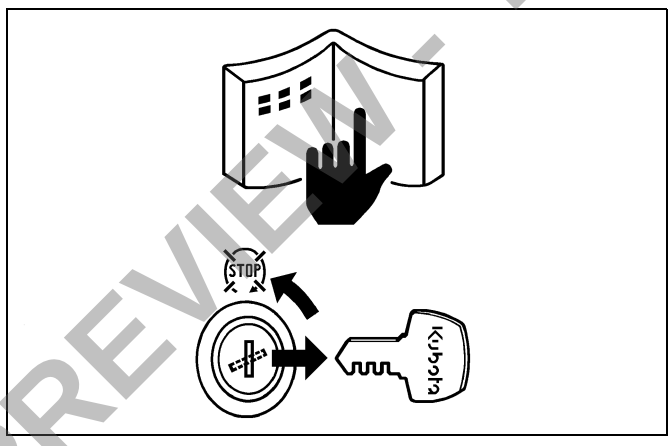
**DANGER : Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.**

**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.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# SPECIFICATIONS

| Model | | | M95X | M105X | M125X |
|---|---|---|---|---|---|
| Engine | Model | | V3800TE2 | V3800TIE2 | F5802TE2 |
| | Type | | Direct injection, W/turbocharger, water-cooled, 4-cycle diesel | | |
| | Number of cylinders | | 4 | | 5 |
| | Total displacement | | 3769 $cm^3$ (230 cu.in.) | | 5832 $cm^3$ (356 cu.in.) |
| | Bore and stroke | | 100 × 120 mm (3.94 × 4.72 in.) | | 109 × 125 mm (4.29 × 4.92 in.) |
| | Net power | | 70.9 kW (95 HP)* | 78.2 kW (105 HP)* | 93.2 kW (125 HP)* |
| | PTO power (factory observe) | | 59.7 kW (80 HP)* / 2600 $min^{-1}$ (rpm) | 67.1 kW (90 HP)* / 2600 $min^{-1}$ (rpm) | 76.8 kW (103 HP)* / 2400 $min^{-1}$ (rpm) |
| | Maximum torque | | 323 N·m (33.0 kgf·m, 238 ft-lbs) / 1500 $min^{-1}$ (rpm) | 363 N·m (37.1 kgf·m, 267 ft-lbs) / 1500 $min^{-1}$ (rpm) | 475 N·m (48.5 kgf·m, 350 ft-lbs) / 1300 $min^{-1}$ (rpm) |
| | Battery capacity | | 12 V, 100 Ah at 20 hours, 900CCA | | 12 V, 120 Ah at 5 hours, 1045CCA |
| | Fuel | | Diesel fuel No. 1 [below –10 °C (14 °F], Diesel fuel No. 2-D [above –10 °C (14 °F)] | | |
| | Fuel tank capacity | | 190 L (50.2 U.S.gal., 41.8 Imp.gals) | | |
| | Engine oil capacity | | 10.5 L (11.1 U.S.qts., 9.2 Imp.qts.) | | 20.8 L (22.0 U.S.qts., 18.3 Imp.qts.) |
| | Coolant capacity | | 9.0 L (9.5 U.S.qts., 7.9 Imp.qts.) | | 13.0 L (13.7 U.S.qts., 11.4 Imp.qts.) |
| Dimensions | Overall length | | 4150 mm (163.4 in.) | | 4360 mm (171.7 in.) |
| | Overall width (min. tread) | | 2125 mm (83.7 in.) | | |
| | Overall height | | 2650 mm (104.3 in.) | 2690 mm (105.9 in.) | 2725 mm (107.3 in.) |
| | Wheel base | | 2435 mm (95.9 in.) | | 2690 mm (105.9 in.) |
| | Tread | Front | 1530 to 1660 mm (60.2 to 65.4 in.) | | 1640 to 1740 mm (64.6 to 68.5 in.) |
| | | Rear | 1530 to 2035 mm (60.2 to 80.1 in.) | | |
| | Crop clearance | | 550 mm (21.7 in.) | 590 mm (23.2 in.) | 615 mm (24.2 in.) |
| Weight | | | 4020 kg (8862 lbs) | 4085 kg (8987 lbs) | 4400 kg (9680 lbs) |
| Travelling system | Standard tire size | Front | 12.4R24 | 13.6R24 | 14.9R24 |
| | | Rear | 16.9R34 | 18.4R34 | 18.4R38 |
| | Clutch | | Multiple wet disc, Electronic Hydraulically operated | | |
| | Steering | | Hydrostatic power steering | | |
| | Braking system | | Hydraulically operated wet disk | | |
| | Differential | | Bevel gears with differential lock (Front, Rear) | | |
| Hydraulic system | Hydraulic control system | | Electronic draft control | | |
| | Pump capacity | | 76.4 L (20.2 U.S.gals, 16.8 Imp.gals) / min. | 68.4 L (18.1 U.S.gals, 15.0 Imp.gals) / min. Canada : 76.4 L (20.2 U.S.gals, 16.8 Imp.gals) / min. | 75.9 L (20.1 U.S.gals, 16.7 Imp.gals) / min. |
| | Three point hitch | | SAE Category 2 | | |
| | Max. lifting force | At lift points** | 2635 kg (5809 lbs) at lower link end with links horizontal | | |
| | | 24 in. behind lift points | 2360 kg (5203 lbs) | | |
| | Remote hydraulic control | | Two remote valve with detent and self-canceling | | |
| | System pressure | | 20.1 MPa (197 $kgf/cm^2$, 2858 psi) | | |
| | Traction system | | Swinging drawbar, adjustable in direction | | |
| PTO | Live PTO (Indipen-dent) | Direction of turning | Clockwise, viewed from tractor rear | | |
| | | Standard PTO | 6 spline : 540 $min^{-1}$ / 2205 $min^{-1}$ 21 spline : 1000 $min^{-1}$ / 2389 $min^{-1}$ | | 6 spline : 540 $min^{-1}$ / 2035 $min^{-1}$ 21 spline 1000 $min^{-1}$ / 2210 $min^{-1}$ |

Note : * Manufacture's estimate

** At lower link and with links horizontal.

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

W10281170

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# GENERAL

## CONTENTS


1. TRACTOR IDENTIFICATION ..... G-1
2. GENERAL PRECAUTIONS ..... G-2
3. HANDLING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING .. G-3
   [1] WIRING ..... G-3
   [2] BATTERY ..... G-5
   [3] FUSE ..... G-5
   [4] CONNECTOR ..... G-5
   [5] HANDLING OF CIRCUIT TESTER ..... G-6
4. LUBRICANTS FUEL AND COOLANT ..... G-7
5. TIGHTENING TORQUES ..... G-9
   [1] GENERAL USE SCREWS, BOLTS AND NUTS ..... G-9
   [2] STUD BOLTS ..... G-9
   [3] HYDRAULIC FITTINGS ..... G-10
6. MAINTENANCE ..... G-11
7. CHECK AND MAINTENANCE ..... G-14
   [1] DAILY CHECK ..... G-14
   [2] CHECK POINTS OF INITIAL 50 HOURS ..... G-15
   [3] CHECK POINTS OF EVERY 50 HOURS ..... G-19
   [4] CHECK POINTS OF EVERY 100 HOURS ..... G-21
   [5] CHECK POINTS OF EVERY 200 HOURS ..... G-28
   [6] CHECK POINTS OF EVERY 300 HOURS ..... G-32
   [7] CHECK POINTS OF EVERY 400 HOURS ..... G-33
   [8] CHECK POINTS OF EVERY 600 HOURS ..... G-34
   [9] CHECK POINTS OF EVERY 800 HOURS ..... G-34
   [10] CHECK POINTS OF EVERY 1500 HOURS ..... G-34
   [11] CHECK POINTS OF EVERY 3000 HOURS ..... G-35
   [12] CHECK POINTS OF EVERY 1 YEAR ..... G-35
   [13] CHECK POINTS OF EVERY 2 YEARS ..... G-36
   [14] OTHERS ..... G-40
8. SPECIAL TOOLS ..... G-45
   [1] SPECIAL TOOLS FOR ENGINE ..... G-45
   [2] SPECIAL TOOLS FOR TRACTOR ..... G-63
9. TIRES ..... G-74
   [1] TYPE OF TIRES ..... G-74
   [2] TREAD ADJUSTMENT ..... G-74
      (1) Front Wheel ..... G-74
      (2) Rear Wheel ..... G-76
   [3] WHEEL HUB ..... G-77
   [4] TIRE PRESSURE ..... G-77
   [5] TIRE LIQUID INJECTION ..... G-78
10. IMPLEMENT LIMITATIONS ..... G-81


PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# 6. 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 | Engine oil | | Change | ★ | | | | | ☆ | | | | | | ☆ | | | every 300 Hr | | | G-15 |
| 2 | Engine oil filter | | Replace | ★ | | | | | | | | | | | ☆ | | | every 600 Hr | | | G-16 |
| 3 | Fuel filter | | Replace | | | | | | | | ☆ | | | | | | | every 400 Hr | | @ | G-33 |
| 4 | In-line fuel filter [M125X] | | Clean | | | | | | | | ☆ | | | | | | | every 400 Hr | | | G-33 |
| 5 | Transmission fluid | | Change | ★ | | | | | | | | | | | ☆ | | | every 600 Hr | | | G-16 |
| 6 | Front differential case oil | | Change | ★ | | | | | | | | | | | ☆ | | | every 600 Hr | | | G-18 |
| 7 | Front axle case oil | | Change | ★ | | | | | | | | | | | ☆ | | | every 600 Hr | | | G-18 |
| 8 | Hydraulic oil filter (suction side) | | Replace | ★ | | | ☆ | | | | ☆ | | | | ☆ | | | every 200 Hr | | | G-17 |
| 9 | Hydraulic oil filter (return side) | | Replace | ★ | | | ☆ | | | | ☆ | | | | ☆ | | | every 200 Hr | | | G-17 |
| 10 | Engine start system | | Check | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | every 50 Hr | | | G-19 |
| 11 | Wheel bolt torque | | Check | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | every 50 Hr | | | G-20 |
| 12 | Battery condition | | Check | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | every 100 Hr | *4 | | G-21 |
| 13 | Greasing | | – | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | every 100 Hr | | | G-27 |
| 14 | Fan belt | | Adjust | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | every 100 Hr | | | G-24 |
| 15 | Brake pedal | | Adjust | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | every 100 Hr | | | G-25 |
| 16 | Parking brake lever | | Adjust | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | every 100 Hr | | | G-25 |
| 17 | Fuel line | | Check | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | every 100 Hr | | @ | G-26 |
| | | | Replace | | | | | | | | | | | | | | | every 2 years | | | G-26 |
| 18 | Air cleaner element [Double type] | Primary element | Clean | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | | ☆ | every 100 Hr | *1 | @ | G-24 |
| | | | Replace | | | | | | | | | | | | | | | every 1 year | *2 | | G-24 |
| | | Secondary element | Replace | | | | | | | | | | | | | | | every 1 year | | | G-24 |
| 19 | Toe-in | | Adjust | | | | ☆ | | | | ☆ | | | | ☆ | | | every 200 Hr | | | G-31 |
| 20 | Oil cooler line | | Check | | | | ☆ | | | | ☆ | | | | ☆ | | | every 200 Hr | | | G-29 |
| | | | Replace | | | | | | | | | | | | | | | every 2 years | | | G-29 |
| 21 | Power steering oil line | | Check | | | | ☆ | | | | ☆ | | | | ☆ | | | every 200 Hr | | | G-30 |
| | | | Replace | | | | | | | | | | | | | | | every 2 years | | | G-30 |

W1035769

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# 5. TIGHTENING TORQUES

Screws, bolts and nuts whose tightening torques are not specified in this Workshop Manual should be tightened according to the table 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 10.5 |
| 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 52.1 |
| M12 (12 mm, 0.47 in.) | 62.8 to 72.5 | 6.4 to 7.4 | 46.3 to 53.5 | – | – | – | 77.5 to 90.1 | 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 86.8 |
| 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 |

W1034542

## [2] STUD BOLTS

| Material of opponent part | Ordinariness | | | Aluminum | | |
|---|---|---|---|---|---|---|
| Unit / Diameter | N·m | kgf·m | ft-lbs | N·m | kgf·m | ft-lbs |
| M8 (8 mm, 0.31 in.) | 11.8 to 15.6 | 1.2 to 1.6 | 8.68 to 11.5 | 8.82 to 11.8 | 0.90 to 1.2 | 6.51 to 8.67 |
| M10 (10 mm, 0.39 in.) | 24.6 to 31.3 | 2.5 to 3.2 | 18.1 to 23.1 | 19.7 to 25.4 | 2.0 to 2.6 | 14.5 to 18.8 |
| M12 (12 mm, 0.47 in.) | 29.5 to 49.0 | 3.0 to 5.0 | 21.7 to 36.1 | 31.4 | 3.2 | 23.1 |

W1048139

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# 1. TROUBLESHOOTING

## [1] V3800

| Symptom | Probable Cause | Solution | Reference Page |
|---|---|---|---|
| **Engine Does Not Start** | • No fuel | Replenish fuel | – |
| | • Air in the fuel system | Vent air | G-40 |
| | • Water in the fuel system | Change fuel and repair or replace fuel system | – |
| | • Fuel pipe clogged | Clean | – |
| | • Fuel filter clogged | Replace | G-33 |
| | • Excessively high viscosity of fuel or engine oil at low temperature | Use specified fuel or engine oil | G-7 |
| | • Fuel with low cetane number | Use specified fuel | G-7 |
| | • Fuel leak due to loose injection pipe retaining nut | Tighten retaining nut | 1-S45 |
| | • Incorrect injection timing | Adjust | 1-S26 |
| | • Injection nozzle clogged | Repair or replace | 1-S27, S45 |
| | • Injection pump malfunctioning | Repair or replace | 1-S26, S61 |
| | • Seizure of crankshaft, camshaft, piston, cylinder or bearing | Repair or replace | – |
| | • Compression leak from cylinder | Replace head gasket, tighten cylinder head screw and nozzle holder | 1-S45, S46, S47, S48 |
| | • Improper valve timing | Correct or replace timing gear | 1-S65 |
| | • Piston ring and cylinder worn | Replace | 1-S67, S68, S99 |
| | • Excessive valve clearance | Adjust | 1-S23 |
| | • Stop solenoid malfunctioning | Replace | – |
| **(Starter Does Not Run)** | • Battery discharged | Charge | G-21, 22 |
| | • Starter malfunctioning | Repair or replace | 9-S67 |
| | • Key switch malfunctioning | Repair or replace | 9-S60, S61 |
| | • Wiring disconnected | Connect | – |
| **Engine Revolution Is Not Smooth** | • Fuel filter clogged or dirty | Clean or change | G-33 |
| | • Air cleaner clogged | Clean or change | G-24 |
| | • Fuel leak due to loose injection pipe retaining nut | Tighten retaining nut | 1-S45 |
| | • Injection pump malfunctioning | Repair or replace | 1-S26, S61 |
| | • Incorrect nozzle opening pressure | Repair or replace | 1-S27 |
| | • Injection nozzle stuck or clogged | Repair or replace | 1-S27, S45 |
| | • Governor malfunctioning | Replace | 1-S56 to S59 |
| | • Bearing worn out | Replace | – |
| | • Turbocharger shaft bent | Replace | 1-S44 |
| | • Turbocharger fin or other part damaged due to foreign matters | Replace | 1-S44 |
| **Either White or Blue Exhaust Gas Is Observed** | • Excessive engine oil | Reduce to specified level | G-7 |
| | • Piston ring and cylinder worn or stuck | Repair or replace | 1-S67, S68, S99 |
| | • Incorrect injection timing | Adjust | – |

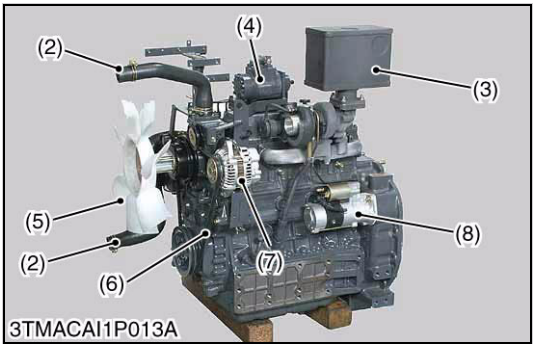
W1014322

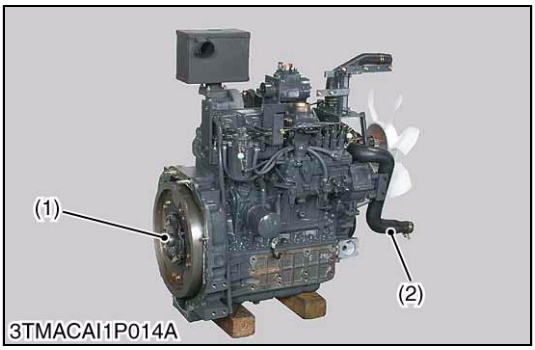
PREVIEW - YOUFIXTHIS.COM

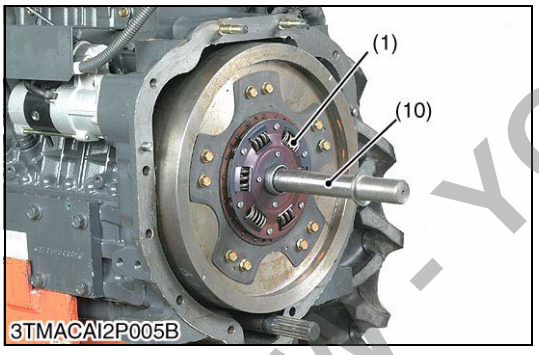
Download full manual at youfixthis.com

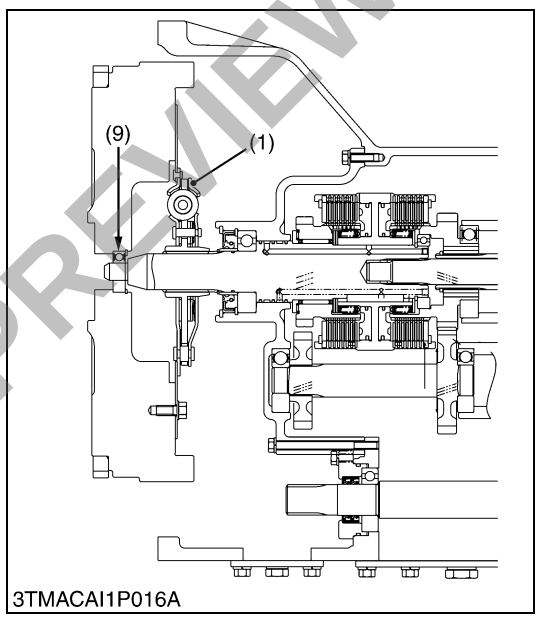
# [4] DISASSEMBLING AND ASSEMBLING [V3800]

## (1) Removing External Components




**External Components**

1. Remove the damper disc (1).
2. Remove the all radiator hoses (2).
3. Remove the muffler (3).
4. Remove the steering controller (4).
5. Remove the fan (5) and fan belt (6).
6. Remove the alternator (7).
7. Remove the starter (8).

**(When reassembling)**

- Confirm that the pilot bearing (9) is surely assembled to the flywheel.
- Direct the shorter end of the dumper disc boss toward the flywheel.
- Apply molybdenum disulphide (Three Bond 1901 or equivalent) to the pilot bearing (9) and damper disc (1) boss.

■ **IMPORTANT**

- **Align the center of damper disc and flywheel by inserting the clutch center tool (Code No. 07916-53041).**

| | | |
|---|---|---|
| Tightening torque | Damper disc mounting screw | 48.1 to 55.9 N·m<br>4.9 to 5.7 kgf·m<br>35.4 to 41.2 ft-lbs |

(1) Damper Disc
(2) Radiator Hose
(3) Muffler
(4) Steering Controller
(5) Fan
(6) Fan Belt
(7) Alternator
(8) Starter
(9) Pilot Bearing
(10) Clutch Center Tool

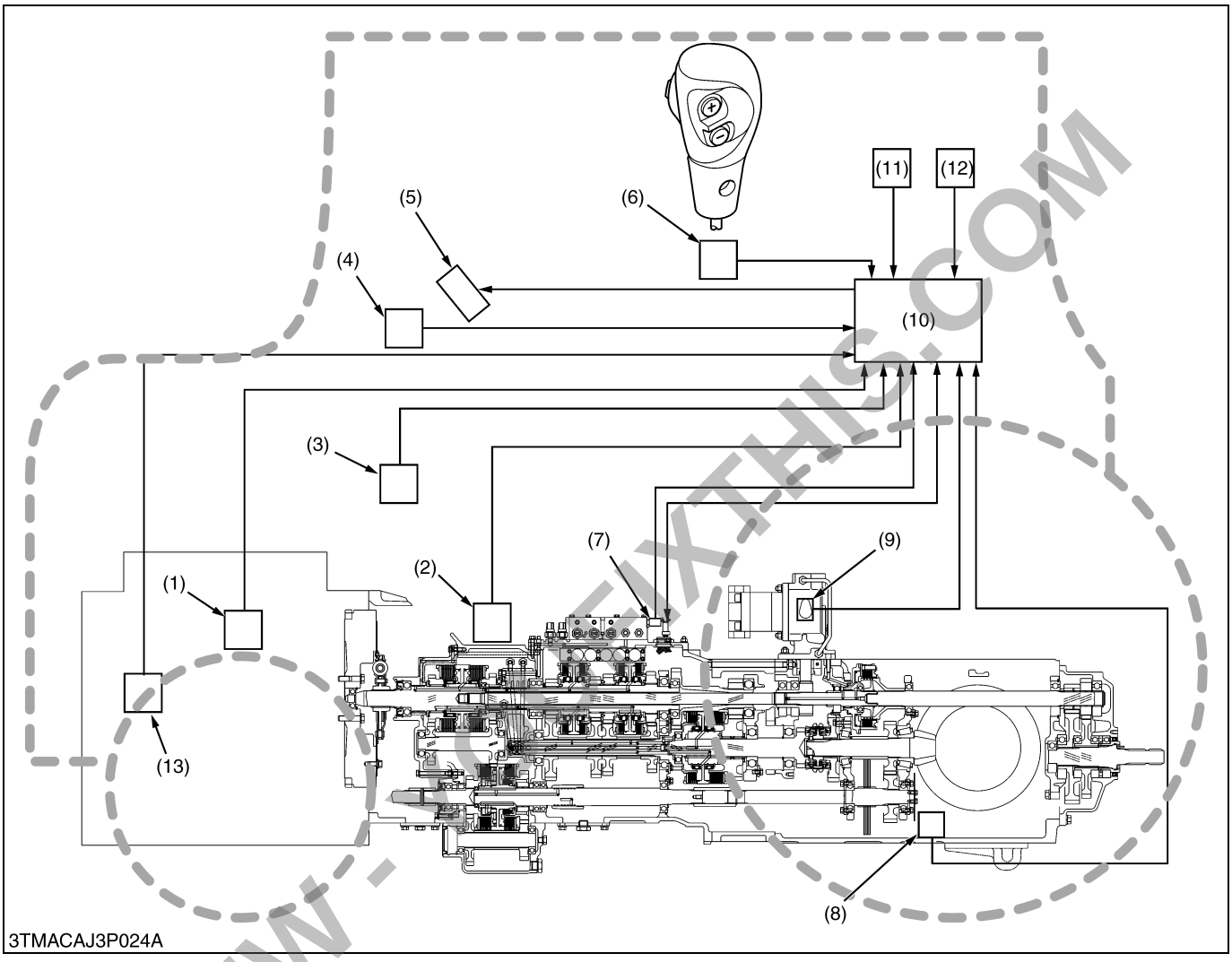
W1032871

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# [2] ELECTRIC CONTROL SYSTEM

## (1) Control System

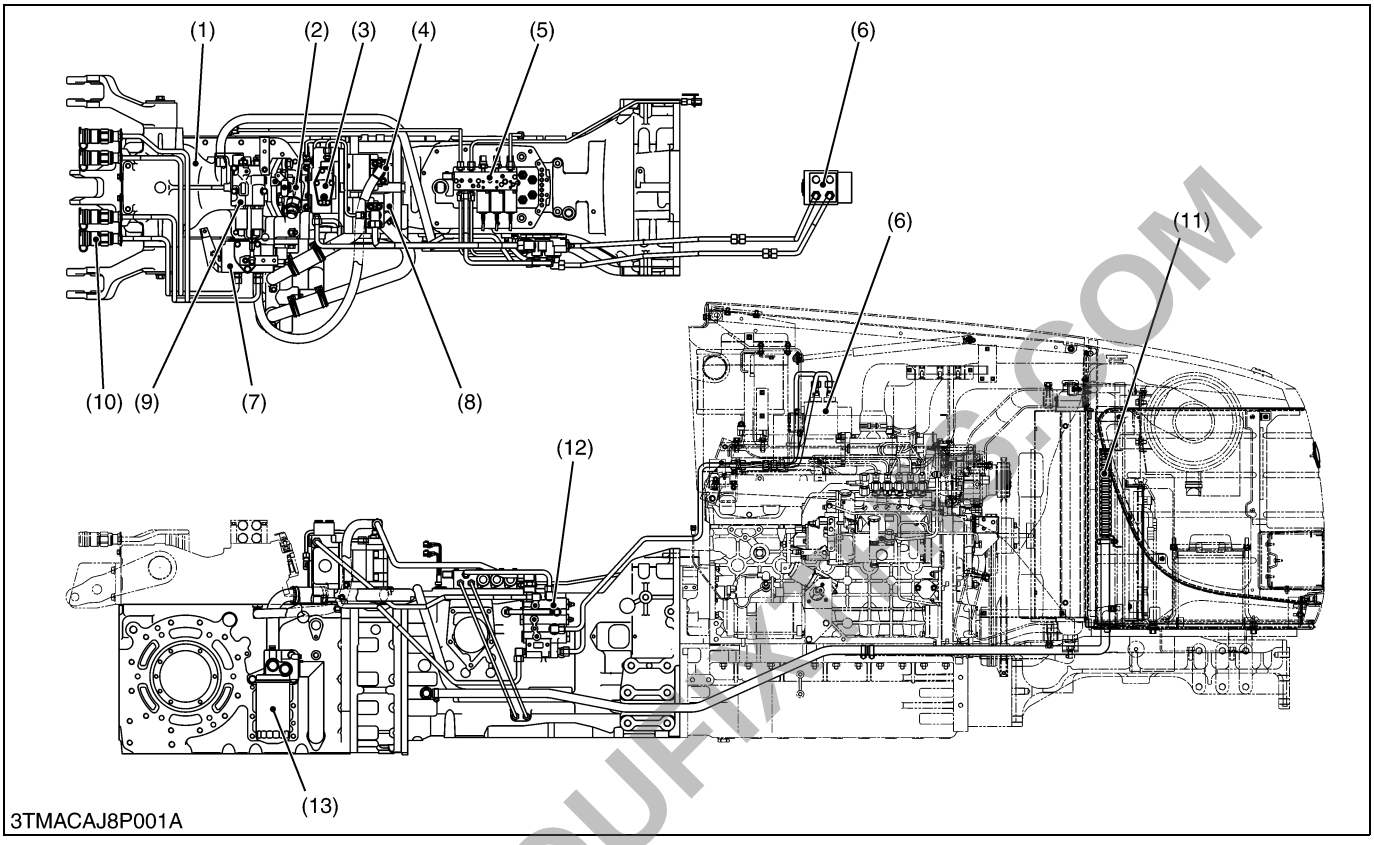



(1) Throttle Sensor
(2) Shuttle Rotation Sensor
(3) Clutch Pedal Sensor
(4) Shuttle Switch
(5) Meter Panel
(6) Power Shift/Range Shift Lever Sensor
(7) Oil Temperature Sensor
(8) Travelling Speed Sensor
(9) Engine Rotation Sensor
(10) Power Shift Control Unit
(11) Auto Mode Switch
(12) Auto Mode Sensitivity Adjustment Dial
(13) Turning Angle Switch

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# 1. STRUCTURE




(1) Hydraulic Cylinder Body
(2) Safety Valve for 3P
(3) PTO Valve
(4) Hydraulic Pump for 3-point Hitch
(5) Power Shift Valve
(6) Power Steering Controller
(7) Auxiliary Control Valve
(8) Hydraulic Pump for Power Steering / Power Shift / 4WD/ Bi-speed / PTO Clutch
(9) Control Valve
(10) Quick Coupler
(11) Oil Cooler
(12) Regulator Valve
(13) Oil Filter

The hydraulic system of M95X, M105X and M125X Tractors are composed of three point hitch is controlled by a microcomputer, remote hydraulic control for implements, power steering, PTO clutch, power shift clutches and 4WD/ bi-speed turn clutch hydraulic systems shown above.

This system has the following functions.

**1) To raise and lower implements connected to the 3-point hitch**

The hydraulic lift is subject to position control and draft (New Mix) control. The hydraulic control lever and draft ratio dial, both on the hydraulic control panel on the right of the operator's seat, are used to make settings. According to the settings, the control valve (solenoid proportional type) (9) located on the hydraulic cylinder is regulate the oil flow.

**2) To draw hydraulic power from auxiliary control valve (7) to operate implement hydraulic actuators**

1. For implements with double acting actuators, hydraulic power can be easily drawn from the quick couplers (10).
2. The auxiliary control permits the simultaneous operation of implements powered by hydraulic pressure along with those attached to the 3-point hitch.
3. Oil flowed from 3-point hitch pump can be connected with oil flowed from auxiliary control valve.
4. Two remote valves are standard. Maximum installation is four valves (3 valves with a flow control valve).

**3) To operate power steering through the steering controller**

This system is shown in "7. STEERING" section.

**4) To operate hydraulic PTO clutch**

This system is shown in "2. CLUTCH" section.

**5) To operate hydraulic clutch for power shift transmission**

This system is shown in "3. TRANSMISSION" section.

**6) To operate hydraulic clutch for 4WD/Bi-speed turn**

The bi-speed turn clutch is controlled by the combination of the solenoid valve and hydraulic flow. Three ways of power train are available : 2 wheel drive, 4 wheel drive and bi-speed turn drive. See "3. TRANSMISSION" section regarding each power train.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# 4. CHECKING, DISASSEMBLING AND SERVICING

## [1] CHECKING AND ADJUSTING [POWER SHIFT SYSTEM]

### (1) Checking by Self Diagnosis







**Self-diagnosis and Adjustment (Initial Setting) Mode**

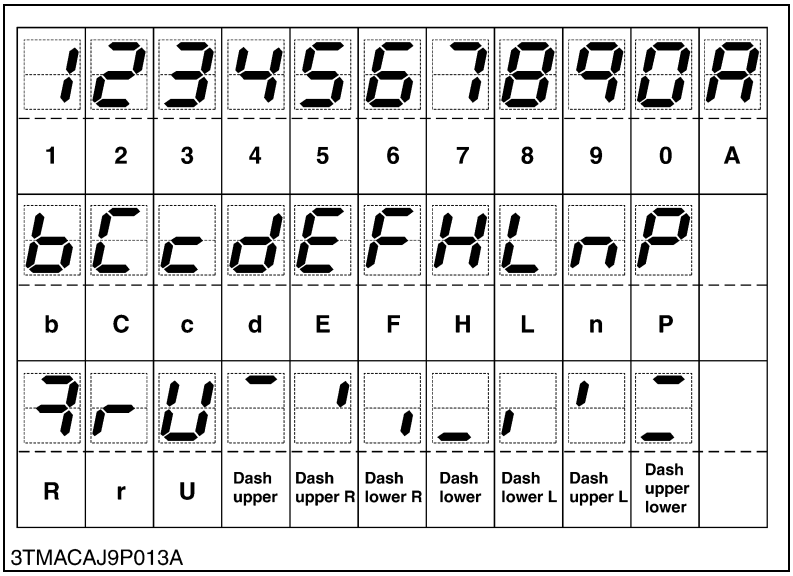
■ **IMPORTANT**

- **Be sure to conduct warm-up operation to raise the temperature of transmission fluid up to the specified level (40 to 50 °C) before performing self-diagnosis and adjustment (initial setting).**
  **(The self-diagnosis of various switches and the items of clutch pedal sensors and models are excluded).**

■ **Self-diagnosis and Adjustment (Initial Setting) Item**

| Mode | Item | | Display |
|---|---|---|---|
| **C** | Self-diagnosis | | **C** |
| **A** | Adjusting all items | Individual items **1** thru **P** | **A** |
| **1** | | Clutch pedal sensor | **1** |
| **2** | | Main shift clutch (**1** thru **4**, **L** and **H**) | **2** |
| **3** | | Master clutch pack (**F** and **R**) | **3** |
| **4** | | Throttle sensor | **4** |
| **5** | | Solenoid proportional pressure reducing valve (master) | **5** |
| **6** | | Solenoid proportional pressure reducing valve (Main shift **L**) | **6** |
| **7** | | Solenoid proportional pressure reducing valve (Main shift **H**) | **7** |
| **N** | | Setting model | **n** |
| **P** | | Power shift/range shift lever (Neutral setting) | **P** |

**[Display]**

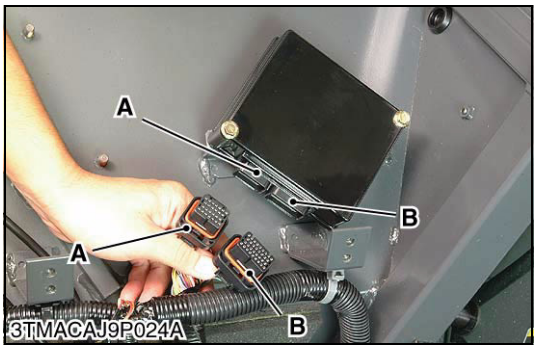


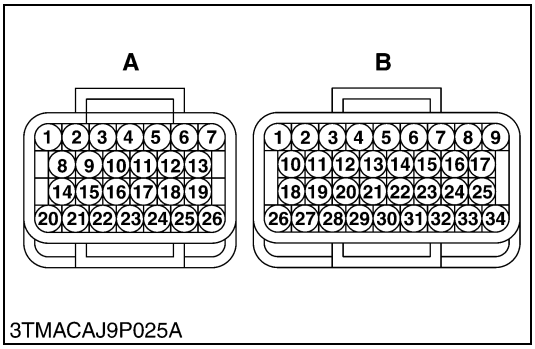

W1027185

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

## (3) Arrangement of ECU Connector Pin (Power Shift)




### ■ Connector A

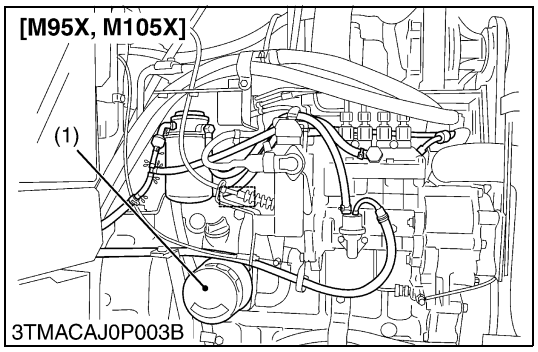
| Terminal No. | Terminal Name (**A**) | Color or wiring |
|---|---|---|
| **A1** | Solenoid Valve (Main Shift **L**) | B/G |
| **A2** | Solenoid Valve (Main Shift **H**) | B/L |
| **A3** | Solenoid Valve (Master Clutch) | B/P |
| **A4** | Speed Change Display (**g**) | Pu/Y |
| **A5** | Solenoid Valve (Main Shift **3**) | Br/R |
| **A6** | Solenoid Valve (Main Shift **4**) | Br/G |
| **A7** | Solenoid Valve (Main Shift **L**) | Br/Y |
| **A8** | Speed Change Display (**d**) | Pu/B |
| **A9** | Speed Change Display (**e**) | Pu/W |
| **A10** | Speed Change Display (**f**) | Pu/R |
| **A11** | Solenoid Valve (Main Shift **2**) | Br/W |
| **A12** | +12 V (Power Source from Key Switch) | R/L |
| **A13** | Solenoid Valve (Main Shift **H**) | Br/L |
| **A14** | Speed Change Display (**b**) | P/W |
| **A15** | Speed Change Display (**c**) | P/L |
| **A16** | GND (Ground for Sensor Line) | R/Y |
| **A17** | +5 V (Power Source for Sensor Line) | B/Y |
| **A18** | To ECU (3P) | W |
| **A19** | Solenoid (Master Clutch) | Or/L |
| **A20** | Speed Change Display (**a**) | P/B |
| **A21** | Bi-speed Relay Coil | Or/W |
| **A22** | +12 V (Power Source from Battery) | R/L |
| **A23** | Buzzer | G/R |
| **A24** | Neutral Lamp | Sb |
| **A25** | Solenoid (Main Shift **1**) | Br/B |
| **A26** | GND | B |

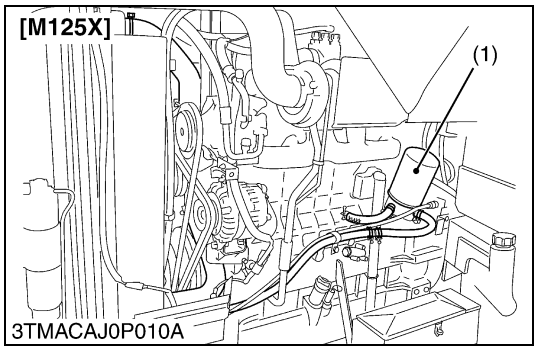
**A : 26P Connector** **B : 34P Connector**

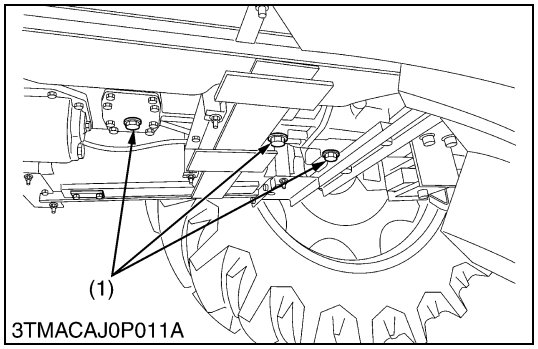
W1038599

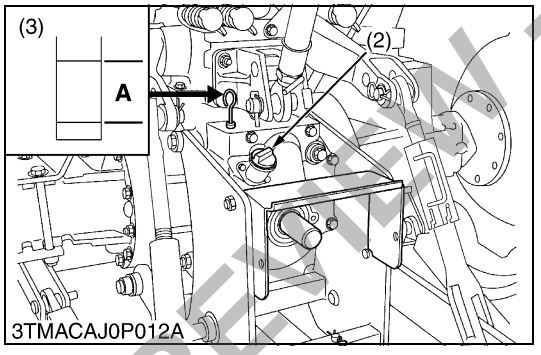
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com




## Replacing Engine Oil Filter

**CAUTION**

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

1. Remove the oil filter.
2. Put a film of clean engine oil on the rubber seal of the new filter.
3. Tighten the filter quickly until it contacts the mounting surface.
4. After the new filter has been replaced, the engine oil normally decreases a little. Make sure that the engine oil does not leak through the seal and be sure to check the oil level on the dipstick. Then, replenish the engine oil up to the prescribed level.

■ **IMPORTANT**

- **To prevent serious damage to the engine, use only a KUBOTA genuine filter.**

(1) Engine Oil Filter

W1027742

## Changing Transmission Fluid

**CAUTION**

- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

1. To drain the used oil, remove the drain plug at the bottom of the transmission case and drain the oil completely into the oil pan.
2. After draining reinstall the drain plug.
3. Fill with the new KUBOTA SUPER UDT fluid up to the upper notch on the dipstick. (See **"4. LUBRICANTS, FUEL AND COOLANT"** at GENERAL Section.)
4. After running the engine for a few minutes, stop it and check the oil level again; add oil to prescribed level.

| | | |
|---|---|---|
| Transmission fluid | Capacity | 60 L<br>63.4 U.S.qts<br>52.8 Imp.qts |

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

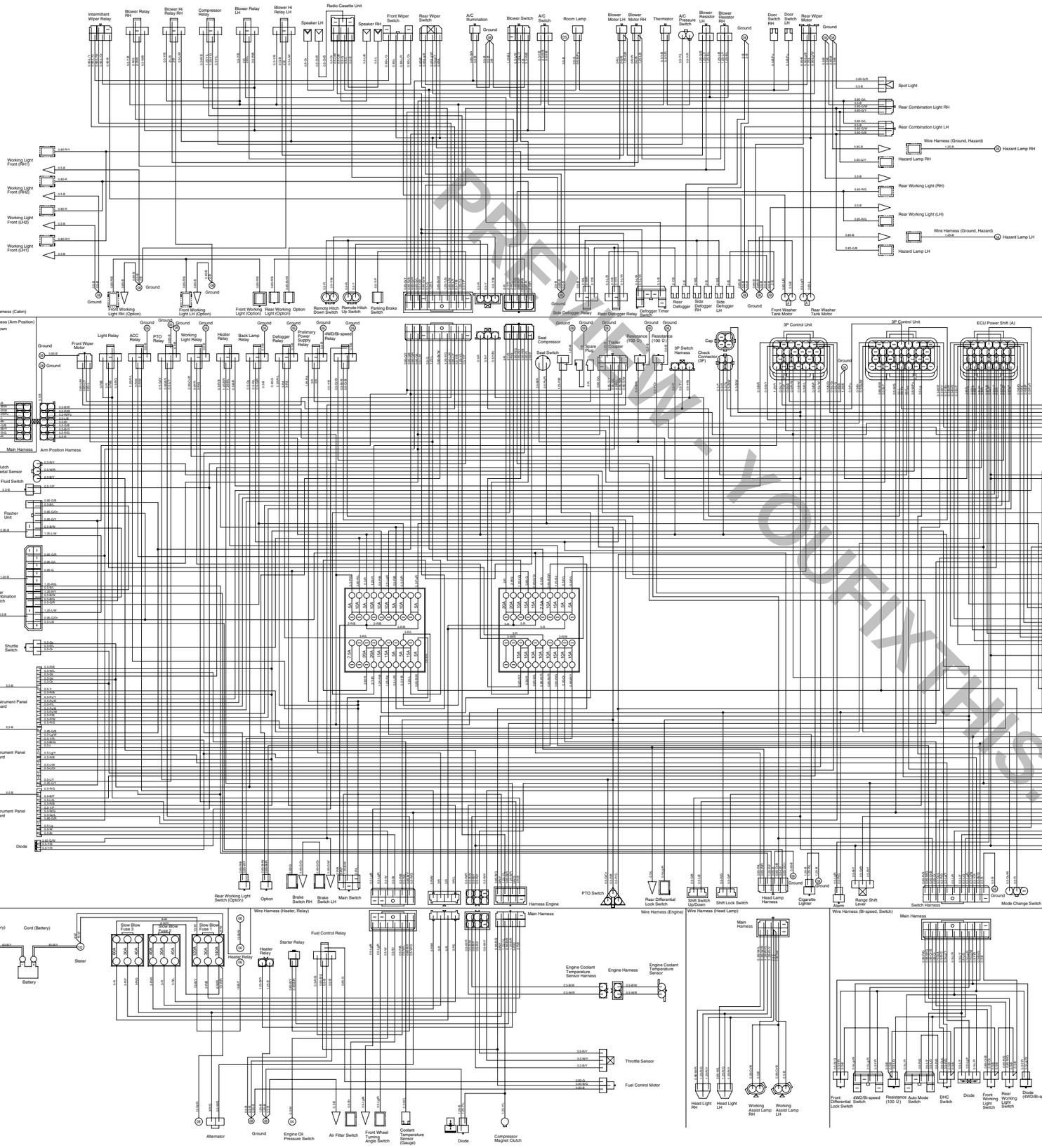
**A : Oil level is acceptable within this range.**

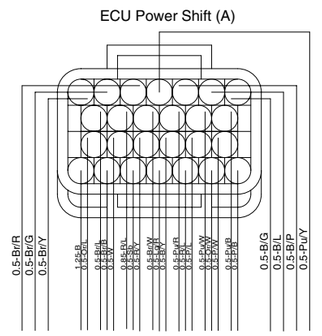
W1028016

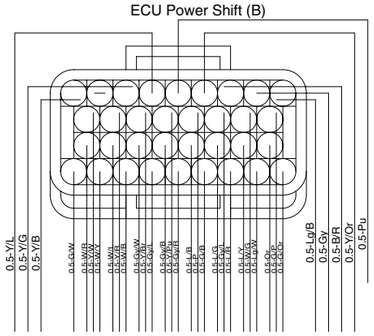
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# Wiring Diagram M125X for Canada



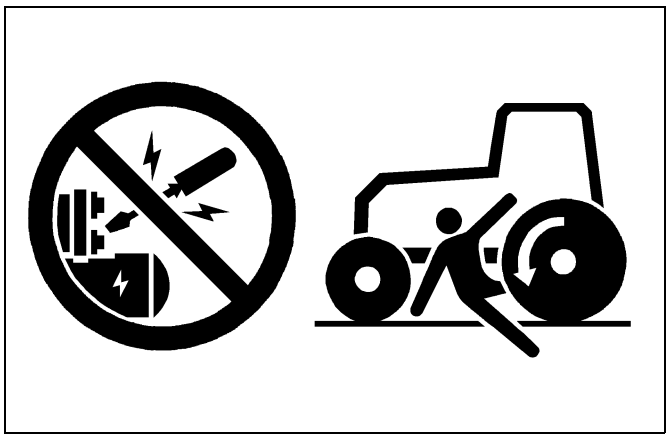







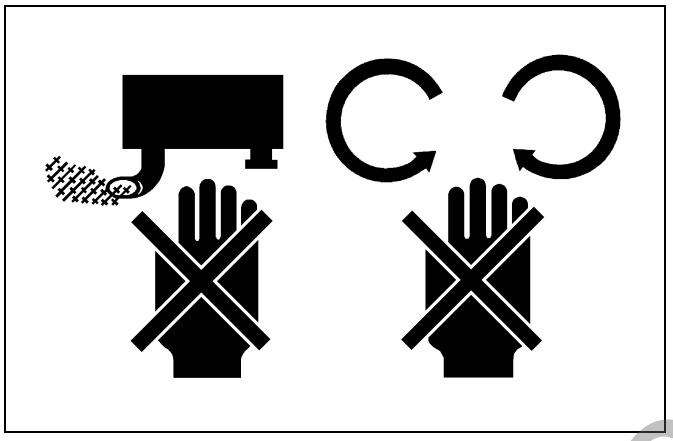
| | | | | | |
|---|---|---|---|---|---|
| B ..... Black | B/L ..... Black / Blue | G/B ..... Green / Black | Lg/B ..... Light Green / Black | W/B ..... White / Black | Pu/Y ..... Purple / Yellow |
| G ..... Green | B/P ..... Black / Pink | G/L ..... Green / Blue | Lg/R ..... Light Green / Red | W/G ..... White / Green | Pu/R ..... Purple / Red |
| L ..... Blue | B/Pu ..... Black / Purple | G/R ..... Green / Red | Lg/W ..... Light Green / White | W/L ..... White / Blue | Pu/B ..... Purple / Black |
| P ..... Pink | B/R ..... Black / Red | G/W ..... Green / White | Lg/Y ..... Light Green / Yellow | W/R ..... White / Red | Pu/W ..... Purple / White |
| W ..... White | B/W ..... Black / White | G/Y ..... Green / Yellow | Or/W ..... Orange / White | W/Y ..... White / Yellow | P/G ..... Pink / Green |
| Y ..... Yellow | B/Y ..... Black / Yellow | G/P ..... Green / Pink | Or/B ..... Orange / Black | W/Pu ..... White / Purple | P/L ..... Pink / Blue |
| Br ..... Brown | B/Or ..... Black / Orange | G/Or ..... Green / Orange | Or/G ..... Orange / Green | Y/B ..... Yellow / Black | P/B ..... Pink / Black |
| Lg ..... Light Green | Br/B ..... Brown / Black | L/B ..... Blue / Black | Or/L ..... Orange / Blue | Y/G ..... Yellow / Green | P/W ..... Pink / White |
| Or ..... Orange | Br/Y ..... Brown / Yellow | L/G ..... Blue / Green | R/B ..... Red / Black | Y/L ..... Yellow / Blue | Gy/L ..... Gray / Blue |
| Sb ..... Sky Blue | Br/W ..... Brown / White | L/Or ..... Blue / Orange | R/G ..... Red / Green | Y/R ..... Yellow / Red | Gy/W ..... Gray / White |
| Gy ..... Gray | Br/R ..... Brown / Red | L/R ..... Blue / Red | R/L ..... Red / Blue | Y/Br ..... Yellow / Brown | Gy/R ..... Gray / Red |
| Pu ..... Purple | Br/G ..... Brown / Green | L/W ..... Blue / White | R/W ..... Red / White | Y/Pu ..... Yellow / Purple | Gy/B ..... Gray / Black |
| B/G ..... Black / Green | Br/L ..... Brown / Blue | L/Y ..... Blue / Yellow | R/Y ..... Red / Yellow | Y/Or ..... Yellow / Orange | |

PREVIEW
YOUFIXTHIS.COM
Download full manual at youfixthis.com



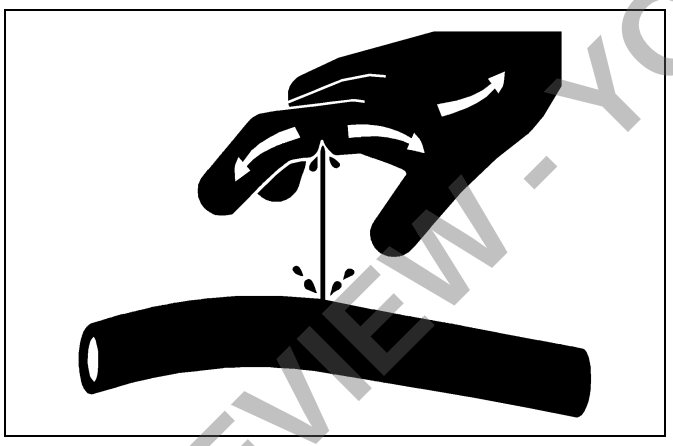
## SAFETY STARTING

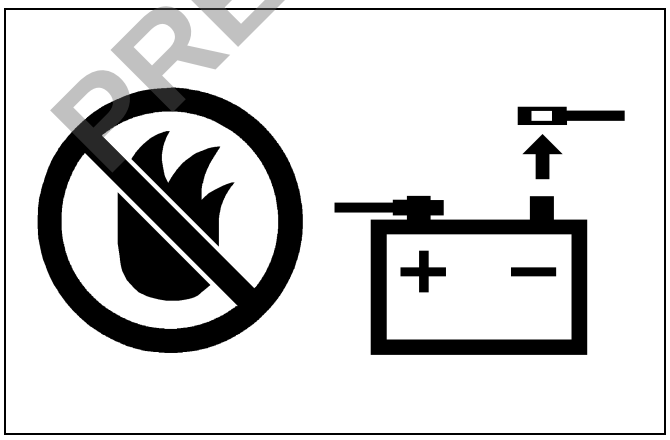
- Do not start the engine by shorting across starter terminals or bypassing the safety start switch.
- Do not alter or remove any part of machine safety system.
- Before starting the engine, make sure that all shift levers are in neutral positions or in disengaged positions.
- Never start the engine 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.



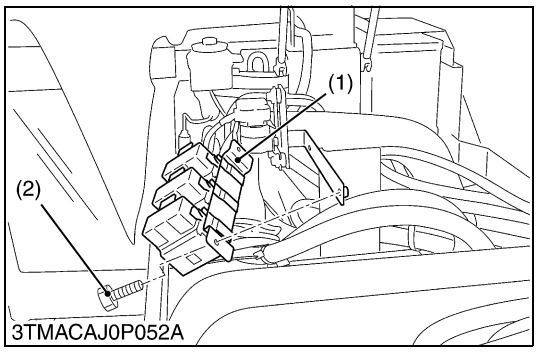


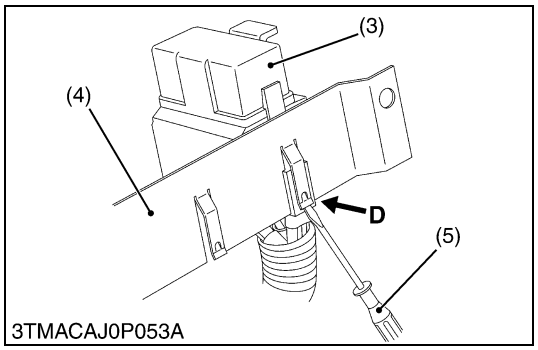
## AVOID FIRES

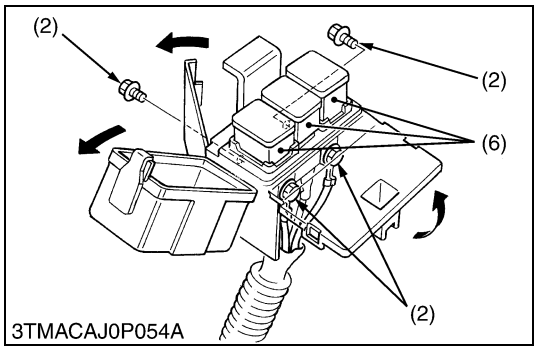
- Fuel is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.
- To avoid sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.
- Battery gas can explode. Keep sparks and open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

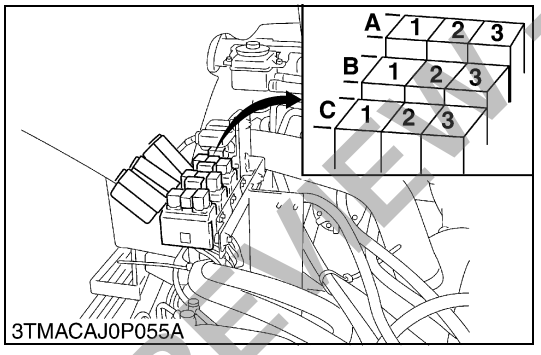
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com




## Replacing Slow Blow Fuse

1. Disconnect the negative cord of the battery.
2. Remove the bolts of fuse box holder.
3. Insert the flat screwdriver to section (**D**) and pull down the fuse boxes off the holder.
4. For the center slow blow fuse in each fuse box, open the box cover and draw out the fuse. For the slow blow fuses at both sides, open the box cover, remove the bolts and draw out the fuses.

| | | | |
|---|---|---|---|
| **A** | 1 | 120 A | Intake heater |
| | 2 | 30 A | Head lamp |
| | 3 | 140 A | Alternator |
| **B** | 1 | 40 A | Work light (rear) |
| | 2 | 30 A | Electrical outlet |
| | 3 | 40 A | Defogger |
| **C** | 1 | 60 A | A/C |
| | 2 | 30 A | Main key switch |
| | 3 | 40 A | Work light (front) |

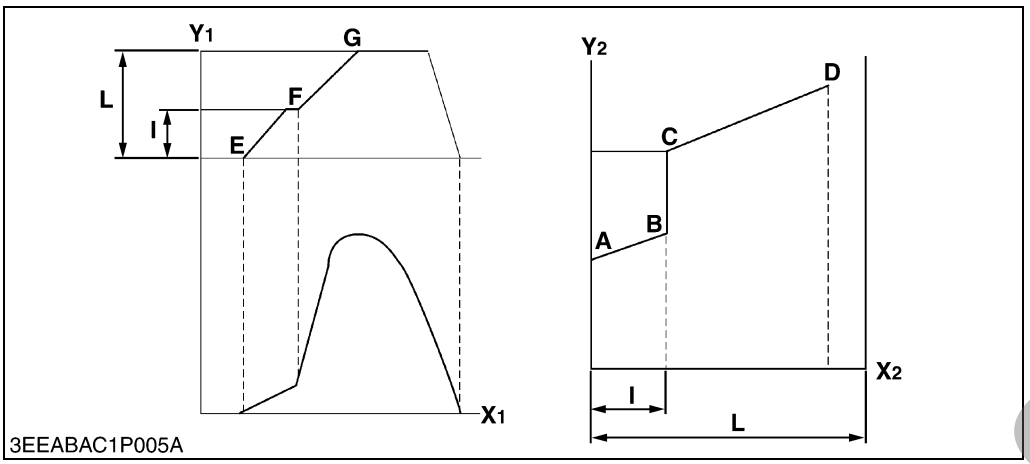
(1) Fuse Box Holder
(2) Bolt
(3) Fuse Box
(4) Fuse Box Holder
(5) Flat Screwdriver
(6) Slow Blow Fuse

**A : Row of Slow Blow Fuse**
**B : Row of Slow Blow Fuse**
**C : Row of Slow Blow Fuse**
**D : Screwdriver Insert Part**

W1040426

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



3EEABAC1P005A

**A-B : First Spring's Set Force**
**B-C-D : Combined Force of First and Second Springs**
**P1 : First Opening Pressure**
**P2 : Second Opening Pressure**

**L : Full Needle Valve Lift**
**l : Needle Valve Pre-lift**

**X1 : Cam Angle (°)**
**Y1 : Injection Rate (mm3/°)**
**X2 : Needle Valve Lift (mm)**
**Y2 : In-line Pressure**

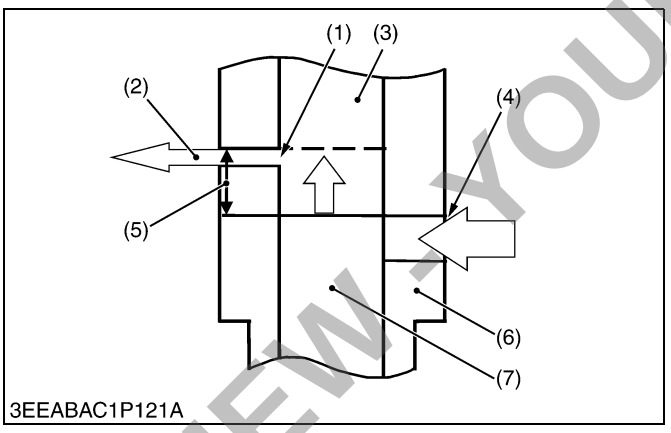
■ **First opening pressure**

The force of the high pressure fuel delivered by the injection pump acts to push the needle valve up. When this force exceeds the set force of the first spring, the nozzle's needle valve pushes the first pushrod up and the valve opens. (First opening pressure is represented by point **E** in the bottom left hand figure, and point **A** in the above figure.)

■ **Second opening pressure**

When the first pushrod has been lifted through the pre-lift, it contacts the second pushrod. As the set force of the second spring is acting on the second pushrod, the combined forces of both the first spring and the second spring then act on the needle valve, which will not lift unless these forces are overcome.

## [3] INJECTION PUMP WITH F.S.P.



3EEABAC1P121A

The fuel injection pump with F.S.P. (Fine Spill Port) mechanism is equipped with two functions : speed timer function and injection rate control function.

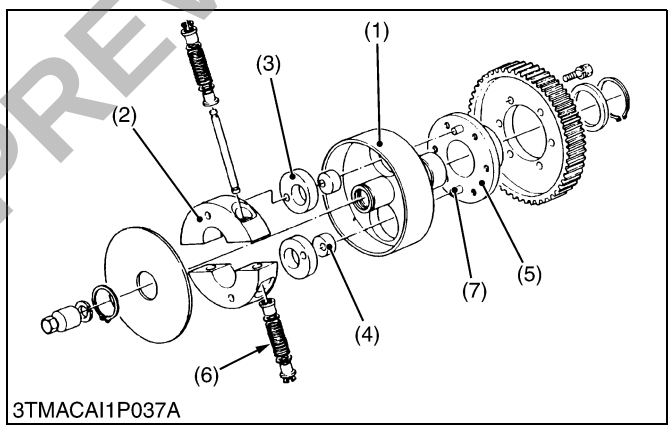
The former function works like this. As the rpm is low, the injection timing gets delayed. This helps cut down on NOx and operating noise.

The latter function serves to keep down the initial injection rate and keep up the later injection rate, which cuts down on Nox and PM as well.

(1) Fine Spill Port (F.S.P.)
(2) Leaking Fuel at Initial Fuel Pressure-Feed Stage
(3) Plunger Chamber
(4) Main Port
(5) F.S.P. Stroke
(6) Cylinder
(7) Plunger

W1015551

## [4] AUTOMATIC TIMER



3TMACAI1P037A

The fuel camshaft is equipped with an automatic timer (Bosch SCDM type), which is designed to adjust the injection timing according to the engine speed and to obtain the best combustion efficiency. (Never disassemble the timer.)

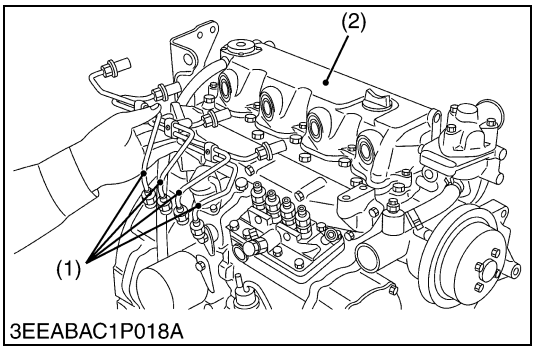
(1) Timing Flange
(2) Flyweight
(3) Large Cam
(4) Small Cam
(5) Flange
(6) Spring-loaded Screws
(7) Pin

W1015647

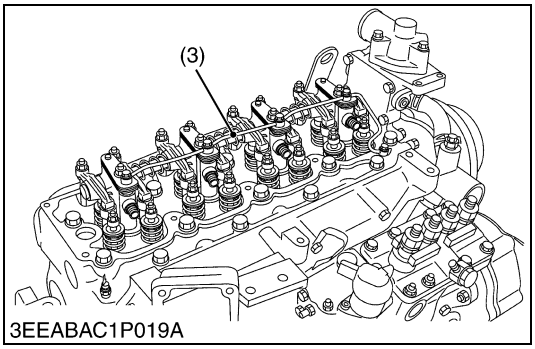
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

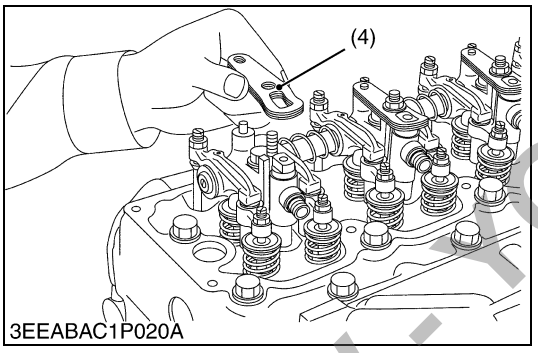
## (3) Cylinder Head and Valves



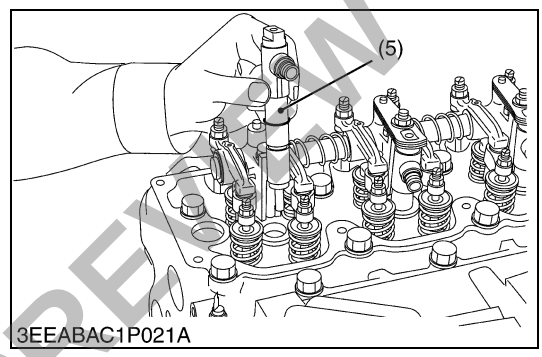
3EEABAC1P018A



3EEABAC1P019A



3EEABAC1P020A



3EEABAC1P021A

**Cylinder Head Cover and Nozzle Holder**

1. Remove the injection pipes (1).
2. Remove the cylinder head cover (2).
3. Remove the overflow pipe (3).
4. Remove the nozzle holder clamps (4), nozzle holder assembly (5) and nozzle gaskets.

**(When reassembling)**

- Check to see that the cylinder head cover gasket is not defective.
- Be sure to place the nozzle gaskets.
- Tighten the head cover mounting bolts to specified torque.
- Mount the check valve with the ↓ mark toward the tank.

| | | |
|---|---|---|
| Tightening torque | Nozzle holder clamp nut | 17.7 to 20.6 N·m<br>1.8 to 2.1 kgf·m<br>13.0 to 15.2 ft-lbs |
| | Overflow pipe assembly retaining nut | 9.8 to 11.3 N·m<br>1.0 to 1.15 kgf·m<br>7.23 to 8.32 ft-lbs |
| | Cylinder head cover screw | 6.9 to 11.3 N·m<br>0.7 to 1.15 kgf·m<br>5.1 to 8.32 ft-lbs |
| | Injection pipe retaining nut | 19.6 to 24.5 N·m<br>2.0 to 2.5 kgf·m<br>14.5 to 18.1 ft-lbs |

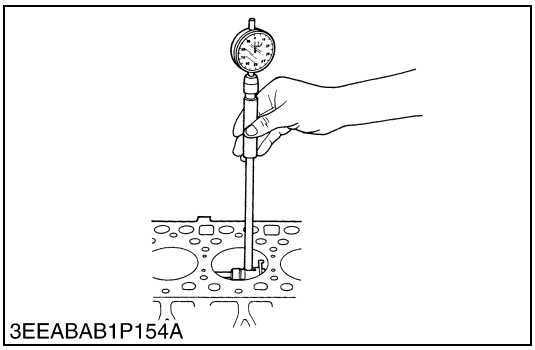
(1) Injection Pipe
(2) Head Cover
(3) Overflow Pipe
(4) Nozzle Holder Clamp
(5) Nozzle Holder Assembly

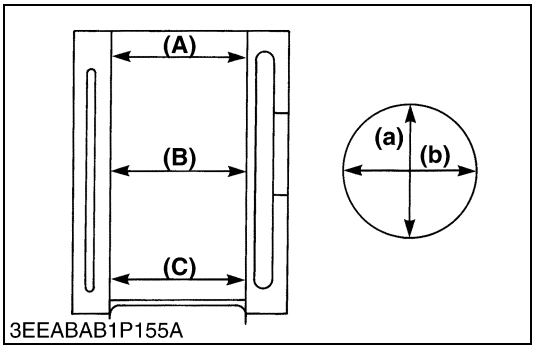
W1033868

PREVIEW - YOUFIXTHIS.COM

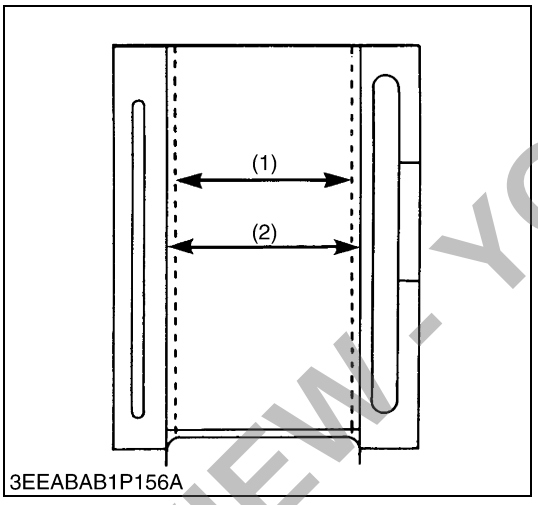
Download full manual at youfixthis.com

## (5) Cylinder


3EEABAB1P154A



3EEABAB1P155A



3EEABAB1P156A

**Cylinder Wear**

1. Measure the I.D. of the cylinder at the six positions (see figure) with a cylinder gauge to find the maximum and minimum I.D.'s.
2. Get the difference (Maximum wear) between the maximum and the minimum I.D.'s.
3. If the wear exceeds the allowable limit, bore and hone to the oversize dimension. (Refer to **"Correcting Cylinder"**.)
4. Visually check the cylinder wall for scratches. If deep scratches are found, the cylinder should be bored. (Refer to **"Correcting Cylinder"**.)

| | | |
|---|---|---|
| Cylinder bore I.D. | Factory spec. | 100.000 to 100.022 mm<br>3.9370 to 3.9379 in. |
| | Allowable limit | 100.15 mm<br>3.9429 in. |

**A : Top**
**B : Middle**
**C : Bottom (Skirt)**
**(a) Right-angled to Piston Pin**
**(b) Piston Pin Direction**

W1069784

**Correcting Cylinder (Oversize +0.5 mm)**

1. When the cylinder is worn beyond the allowable limit, bore and hone it to the specified dimension.

| | | |
|---|---|---|
| Cylinder bore I.D. (2) | Factory spec. | 100.500 to 100.522 mm<br>3.9567 to 3.9576 in. |
| Maximum wear | Allowable limit | 100.65 mm<br>3.9626 in. |
| Finishing | Hone to 1.2 to 2.0 μR max.<br>∇∇∇<br>(0.000047 to 0.000079 in.μR max. | |

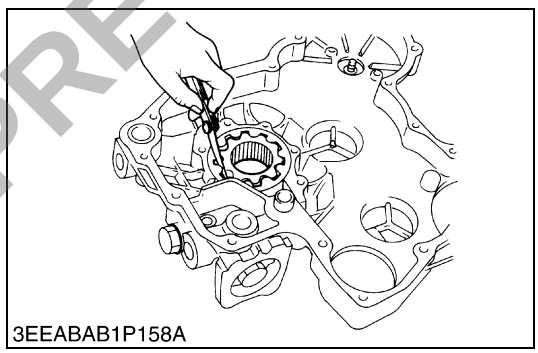
2. Replace the piston and piston rings with oversize (0.5 mm) ones.

■ **NOTE**
- **When the oversize cylinder is worn beyond the allowable limit, replace the cylinder block with a new one.**

(1) Cylinder I.D. (Before Correction) (2) Oversize Cylinder I.D.

W1070275

## (6) Oil Pump


3EEABAB1P158A

**Rotor Lobe Clearance**

1. Measure the clearance between lobes of the inner rotor and the outer rotor with a feeler gauge.
2. If the clearance exceeds the allowable limit, replace the oil pump rotor assembly.

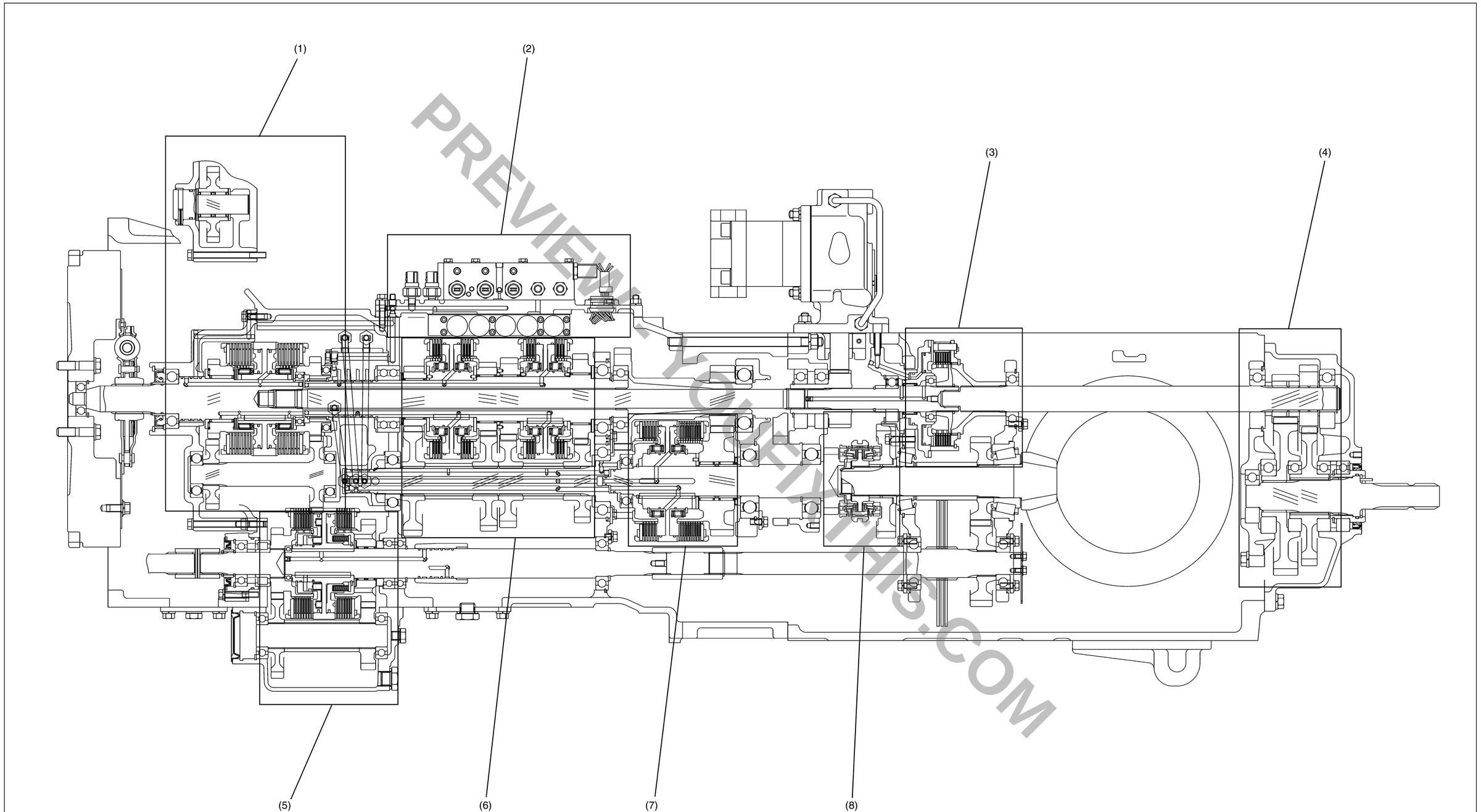
| | | |
|---|---|---|
| Clearance between inner rotor and outer rotor | Factory spec. | 0.04 to 0.16 mm<br>0.0016 to 0.0063 in. |
| | Allowable limit | 0.3 mm<br>0.0118 in. |

W1070483

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# 1. STRUCTURE



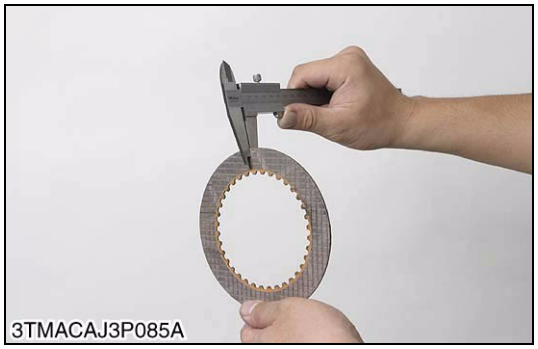

3TMACAJ3P001A

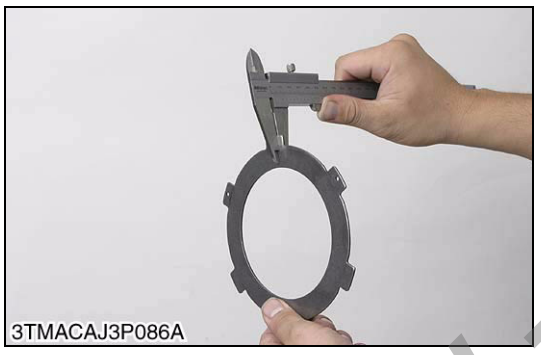
(1) Master Clutch (2) Power Shift Valve (3) PTO Clutch (4) PTO Speed Change (5) 4WD / Bi-speed Clutch (6) Main Shift (1-4) (7) Main Shift (L-H) (8) Range Shift (L-H)

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

## (2) Main Shift Clutch




**Clearance between Internal Snap Ring and Pressure Plate**

1. Measure the clearance between internal snap ring and pressure plate with a feeler gauge.
2. Measure the clearance at several points.
3. If the clearance exceeds the allowable limit, check the clutch disc and drive plate.

■ **Main Shift Clutch (1st to 4th)**

| | | |
|---|---|---|
| Clearance between internal snap ring and pressure plate | Factory spec. | 1.6 to 1.8 mm<br>0.063 to 0.071 in. |
| | Allowable limit | 3.2 mm<br>0.126 in. |

| Item | Thickness | Number |
|---|---|---|
| Drive plate | 1.4 mm (0.055 in.) | 3 |
| | 1.6 mm (0.063 in.) : Standard | |
| Clutch disc | 2.2 mm (0.087 in.) | 3 |
| Pressure plate | 4.0 mm (0.157 in.) | 1 |
| Piston | 10 mm (0.394 in.) | 1 |

■ **Main Shift Clutch (L Range Side)**

| | | | |
|---|---|---|---|
| Clearance between internal snap ring and pressure plate | Factory spec. | M95X<br>M105X | 2.0 to 2.2 mm<br>0.079 to 0.087 in. |
| | | M125X | 2.6 to 2.8 mm<br>0.102 to 0.110 in. |
| | Allowable limit | M95X<br>M105X | 3.6 mm<br>0.142 in. |
| | | M125X | 4.2 mm<br>0.165 in. |

**[M95X, M105X]**

| Item | Thickness | Number |
|---|---|---|
| Drive plate | 1.4 mm (0.055 in.) | 2 |
| | 1.6 mm (0.063 in.) | 5 |
| Clutch disc | 1.8 mm (0.071 in.) | 7 |
| Pressure plate | 4.0 mm (0.157 in.) | 1 |
| Piston | 16.5 mm (0.650 in.) | 1 |

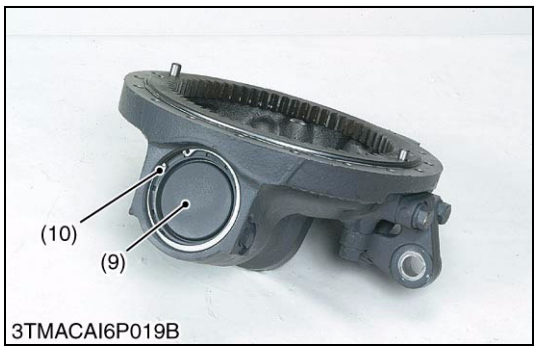
**[M125X]**

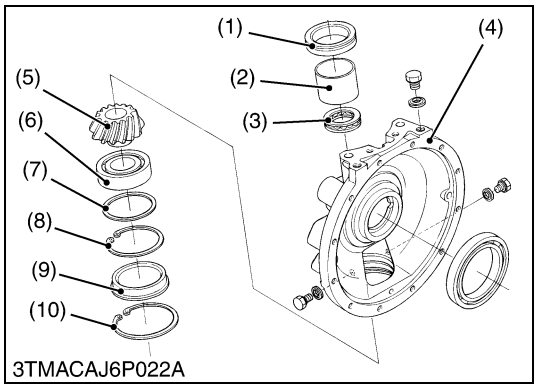
| Item | Thickness | Number |
|---|---|---|
| Drive plate | 1.4 mm (0.055 in.) | 7 |
| | 1.6 mm (0.063 in.) | 2 |
| Clutch disc | 1.8 mm (0.071 in.) | 9 |
| Pressure plate | 4.0 mm (0.157 in.) | 1 |
| Piston | 10 mm (0.394 in.) | 1 |

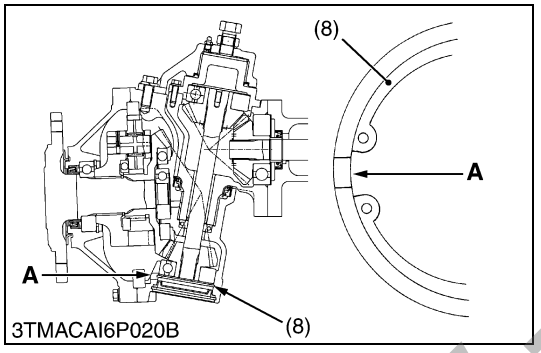
W1028400

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com







## Front Wheel Case

1. Remove the internal snap ring (10).
2. Remove the cap (9) which is installed in the bottom of front wheel case.
3. Remove the internal snap ring (8) and take out the adjusting shims (7).
4. Tap out bevel gear to downward, and take out the bevel gear (5) and bearing (6) as a unit.

**(When reassembling)**

- Apply grease to the front wheel case DX bushing (2).
- Apply grease to the oil seal.
- Install the oil seal (1) to the front wheel case so that its lips faces the inward.
- Install the internal snap ring (8) as shown in the figure left side so that align the gap of internal snap ring (8) and by-pass hole (**A**).
- Apply gear oil to the cap.

(1) Oil Seal
(2) DX Bushing
(3) Thrust Ball Bearing
(4) Front Wheel Case
(5) Bevel Gear
(6) Ball Bearing
(7) Shim
(8) Internal Snap Ring
(9) Cap
(10) Internal Snap Ring

**A : By-pass Hole**

W1016099

## Bevel Gear

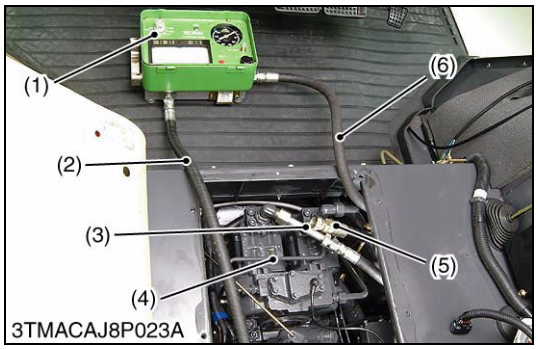
1. Remove the bevel gear and bearing with a puller.

W1016608

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

## (2) Hydraulic Pump for 3-Point Hitch




**Hydraulic Flow Test**

■ **IMPORTANT**

- **When using flowmeter other than KUBOTA specified flowmeter, be sure to use the instructions with the flowmeter.**
- **Do not close the flowmeter loading valve completely, before testing, because it has no relief valve.**

1. Remove the floor mat and inspection plate under the mat.
2. Remove the delivery hose (5).
3. Install the adaptor **64** (3) (see page G-63) to the pump discharge port.
4. Connect the hydraulic test hose (6) to the hydraulic pump (4) and flowmeter inlet port.
5. Connect the other hydraulic test hose (2) to the flowmeter outlet port and put the end of the hose into the transmission case oil port.
6. Open the flowmeter loading valve completely. (Turn counterclockwise.)
7. Start the engine and set the engine speed at 2000 to 2200 $min^{-1}$ (rpm).
8. Slowly close the loading valve to generate pressure approx. 9.8 MPa (100 $kgf/cm^2$, 1422 psi). Hold in this condition until oil temperature reaches approx. 50 °C (122 °F).
9. Open the loading valve completely.
10. Set the engine speed. (Refer to **Condition**.)
11. Read and note the pump delivery at no pressure.
12. Slowly close the loading valve to increase rated pressure. (Refer to **Condition**.) As the load is increased, engine speed drops, therefore, reset the engine speed.
13. Read and note the pump delivery at rated pressure.
14. Open the loading valve completely and stop the engine.
15. If the pump delivery does not reach the allowable limit, check the pump suction line, oil filter or hydraulic pump.

(1) Flowmeter
(2) Hydraulic Test Hose
(3) Adaptor **64**
(4) Hydraulic Pump (for 3-Point Hitch)
(5) Delivery Hose
(6) Hydraulic Test Hose

W1015678

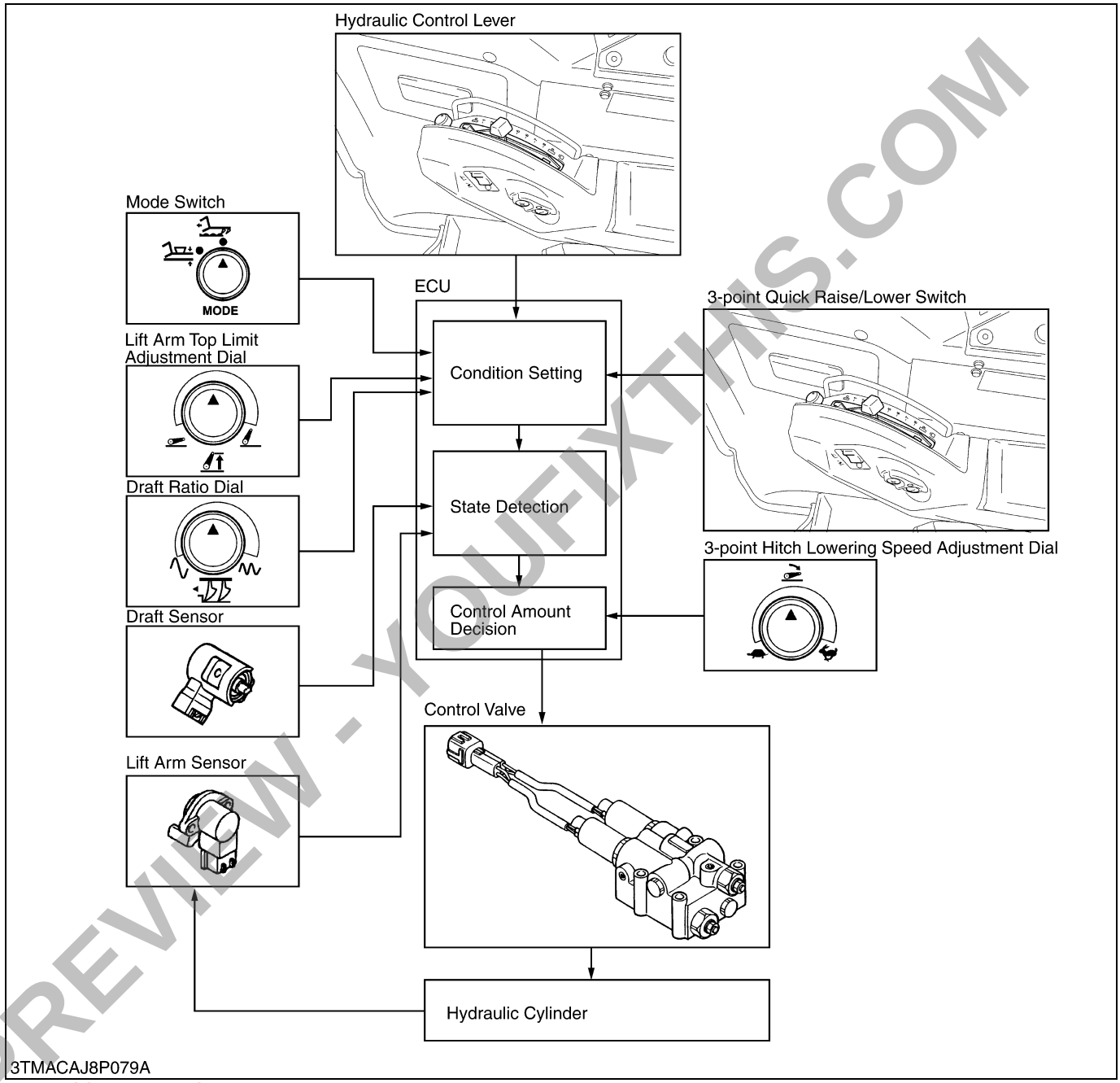
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# 4. 3-POINT HITCH CONTROL

## [1] SYSTEM OUTLINE

### (1) Control




■ **Position Control**

First set the mode selector switch to **POSITION**. The attachment can be adjusted to any level by moving the hydraulic control lever. At this time, the top limit of the three-point link is determined by the lift arm top limit dial.

The lowering speed dial is used to adjust the lowering speed of the three-point link.

■ **Draft Control**

**1) Hydraulic Control Lever**

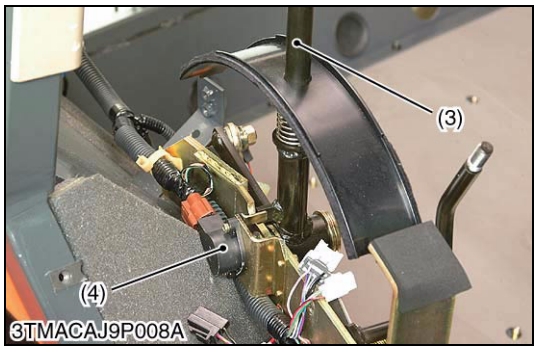
This will control the pull of the 3-point implement. As the load on the 3-point hitch changes due to various soil conditions, the draft control system automatically responds to these changes by either raising or lowering the implement slightly to maintain a constant pull.

Set the implement pull with the hydraulic control lever.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com




**Mode P (Power SHift/Range Shift Lever Sensor) Initial Setting Procedure**

1. With the main key switch off, depress and hold the shift-up button (+) and shift-down (–) on the power shift lever.
2. Still holding the buttons down, start the engine. If a **[8]** shows in the display panel, release the two buttons and the **[8]** should change to **[C]**.
3. Press the shift-up button (+) several times until a **[P]** shows in the display.
4. Press the shift-down button (–) to locks into mode **[P]** adjustment (power shift/range shift lever sensor).
5. Press the shift-up button (+) and **[n]** lights in the display.

■ **NOTE**

- **If [n] is blinking in the display, check the power shift lever position, sensor and adjusting rod.**

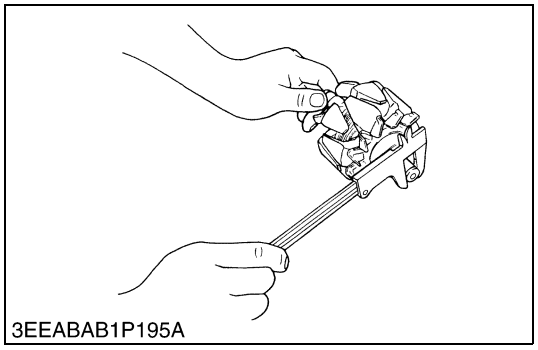
6. Set the power shift lever at the **Neutral** position.
7. Press the shift-down button (–) and **[8]** will show in the display and the **[8]** should change to **[C]**.
8. Turn off the main key switch.

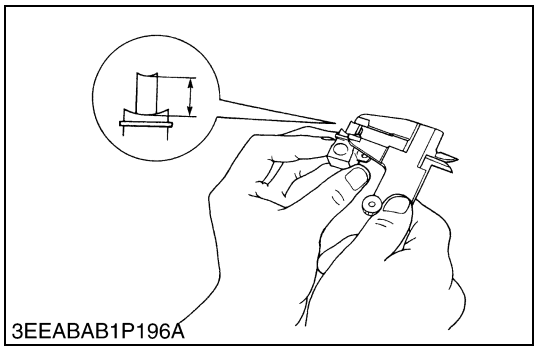
(1) Shift-up Button (+)
(2) Shift-down Button (–)
(3) Power Shift/Range Shift Lever
(4) Power Shift/Range Shift Lever Sensor

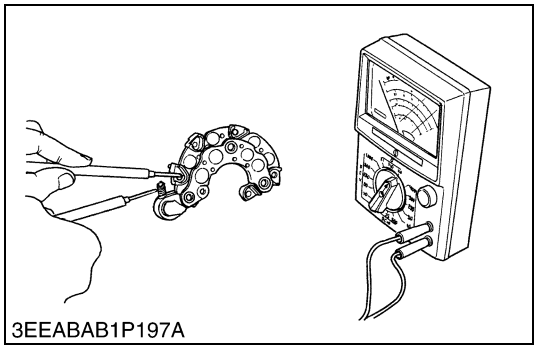
W1018394

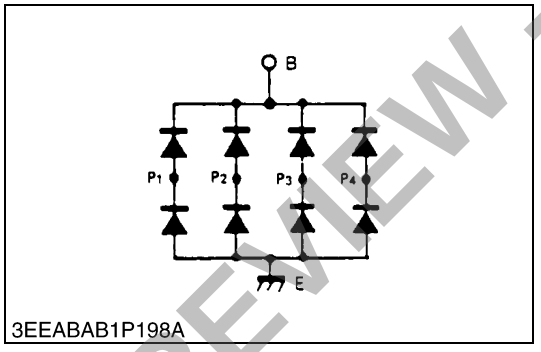
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com


3EEABAB1P195A


3EEABAB1P196A


3EEABAB1P197A



3EEABAB1P198A

## Slip Ring

1. Check the slip ring for score.
2. If scored, correct with an emery paper or on a lathe.
3. Measure the O.D. of slip ring with vernier calipers.
4. If the measurement is less than the allowable limit, replace it.

| | | |
|---|---|---|
| Slip ring O.D. | Factory spec. | 22.7 mm<br>0.894 in. |
| | Allowable limit | 22.1 mm<br>0.870 in. |

W1020208

## Brush Wear

1. Measure the brush length with vernier calipers.
2. If the measurement is less than allowable limit, replace it.
3. Make sure that the brush moves smoothly.
4. If the brush is defective, replace it.

| | | |
|---|---|---|
| Brush length | Factory spec. | 18.5 mm<br>0.728 in. |
| | Allowable limit | 5.0 mm<br>0.197 in. |

W1020329

## Rectifier

1. Check the continuity across each diode of rectifier with an ohmmeter.
2. The rectifier is normal if the diode in the rectifier conducts in one direction and does not conduct in the reverse direction.

W1020452

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

# PREVIEW ONLY

You're viewing 25 of 654 pages

## The full manual includes:

- All 654 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

**Kubota M95X, M105X, M125X Service Manual**

**Scan or click anywhere**
**youfixthis.com**

*Click anywhere on this page to get the full manual*