AMT600, AMT622 and AMT626 All Material Transporters

For complete service information also see:

John Deere K Series Air Cooled Engines CTM5

John Deere Horicon Works
TM1363 (15AUG91)
LITHO IN U.S.A.
ENGLISH

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

T81389 -UN-07DEC88

DX,ALERT -19-04JUN90

UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

TS187 -19-30SEP88

DX,SIGNAL -19-04JUN90

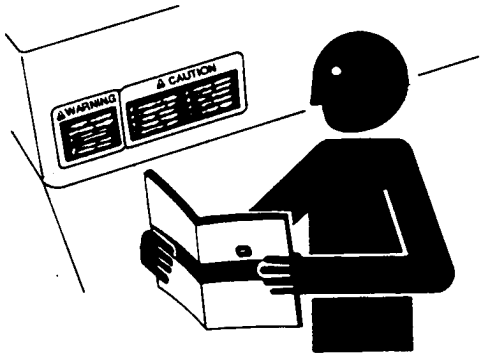
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



TS201 -UN-23AUG88

DX,READ -19-04JUN90

OPERATE TRANSPORTER SAFELY

Sit on center of seat and keep both feet on foot platform at all times. Never operate transporter while standing.

Always use both hands for steering.

Before leaving the operator's station:

- Come to complete halt.
- Stop engine.
- Shift to neutral.
- Set parking brake.
- Remove key.

WX,622,TMSY,F -19-09MAY90

TUNE-UP ADJUSTMENTS

Perform tune-up adjustments in the following order to improve the efficiency and operation of the transporter.

Tune-up Adjustment	Section	Group
1. Clean engine cooling fins.		
2. Clean or replace air cleaner element.		
3. Check or replace fuel filter.	30	5
4. Check battery electrolyte level.		
5. Clean, regap or replace spark plug.	240	15
6. Check engine compression.	220	15
7. Adjust throttle cable.	220	15
8. Check and adjust choke.	220	15
9. Adjust governor.	220	15
10. Adjust slow idle stop and idle mixture screw.	220	15
11. Adjust slow idle limiter screw.	220	15
12. Adjust fast idle limiter screw.	220	15
13. Check and adjust brakes.	260	15
14. Check charging system output.	240	15
15. Check tire pressure.		

WX,622,TUNE,B -19-09MAY90

AMT FEATURES

The AMT 600, 622 and 626 Utility Vehicles were designed to efficiently transport loads in all types of terrain.

Specifications can be found in Section 10, Group 10 and Section 210, Group 05.

M52243 -UN-29NOV88

Slide M52243

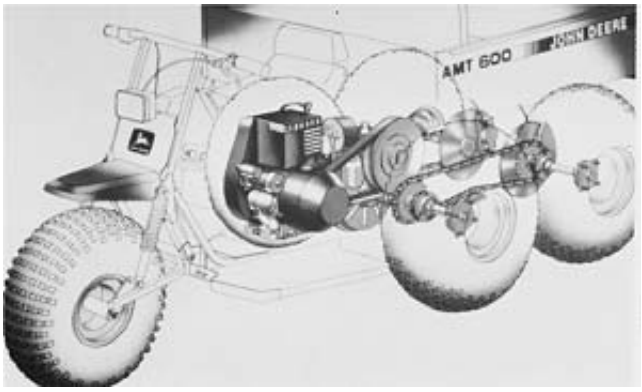
M52258 -UN-29NOV88

Slide M52258

MX,1030FD,A1 -19-29AUG91

All models offer forward and reverse in a single range, variable speed drive system. The drive system consists of a drive clutch, a driven clutch, a drive belt and a transaxle. This means that no shifting is required to increase speed, and infinite speeds up to 26 km/h (16 mph) are the result. This drive system automatically downshifts (changes gear ratios) under load while maintaining engine rpm.

Slide M52326

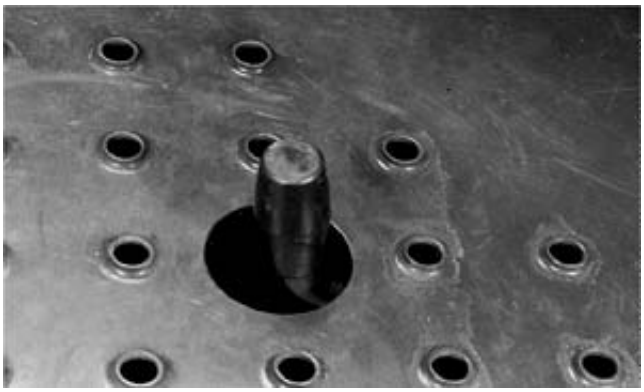


M52326 -UN-29NOV88

MX,1030FD,A2A -19-29AUG91

The differential lock is on the left side for easy foot operation with the left heel, and locks the four drive wheels together for extra pull in tough spots.

Slide M48551



-UN-21FEB90
M48551

MX,1030FD,A34 -19-29AUG91

Dual headlights are standard equipment on the AMT622/626.

Slide M48552

-UN-28FEB90
M48552

MX,1030FD,A35A -19-29AUG91

A tool compartment is located in the center console.

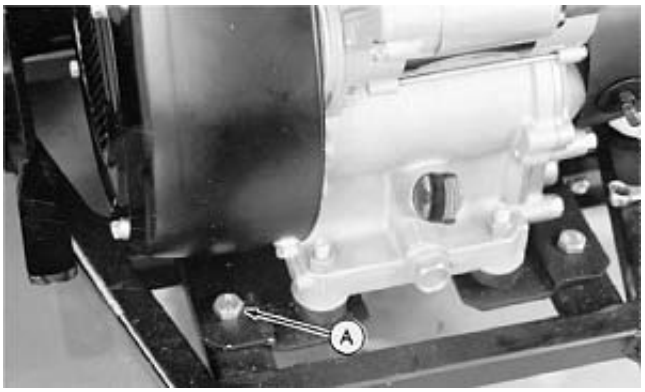
Slide M48544

-UN-07AUG91
M48544

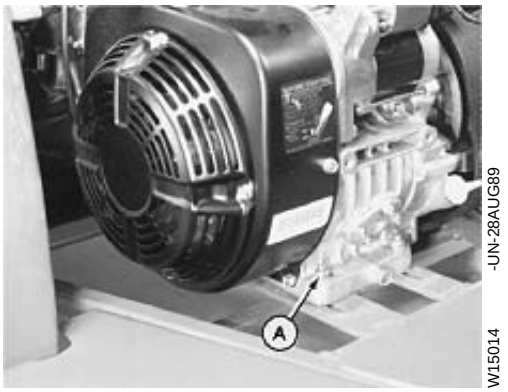
MX,1030FD,A36A -19-29AUG91

15. Remove four engine mounting plate-to-frame bolts (A) and attaching hardware.

16. Remove engine from right-hand side of machine.



AMT600



AMT622/626

MX,2005FD,A8 -19-31JUL91

DISASSEMBLE FUEL TANK

1. Pull shut-off valve from tank, inspect valve and filter, and replace valve if necessary.

WXA,030010,6 -19-09MAY90

2. Remove grommet (A) from tank, inspect grommet, and replace if necessary.

WXA,030010,7 -19-09MAY90

3. Remove gauge/cap assembly from tank.

4. Inspect float (A) to be sure it moves freely and operates gauge needle.

5. Replace gauge/cap assembly if it does not function properly.

WXA,030010,8 -19-09MAY90

ASSEMBLE FUEL TANK

1. Push grommet (A) into tank.

2. Push shut-off valve into grommet with outlet facing left-hand side of machine.

3. Install gauge/cap assembly.

WXA,030010,9 -19-09MAY90

REMOVE BATTERY

CAUTION: Help prevent bodily injury due to falling cargo box, install support rod when box is raised.

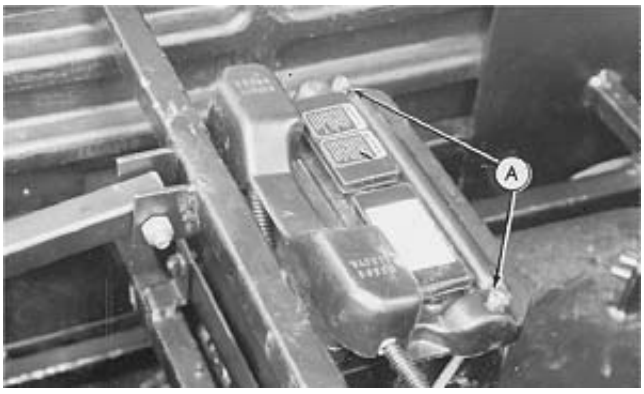
1. Raise cargo box and install support rod.

2. Remove nuts (A) from battery cover and remove cover.

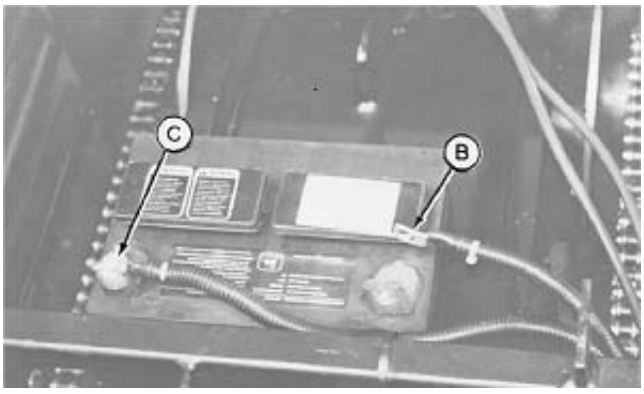
3. Disconnect negative battery cable (B) and positive cable (C).

3. Remove battery.

W14979 -UN-28JUN89



RW12465 -UN-21NOV88



RW12314 -UN-21NOV88

WXA,040010,1 -19-09MAY90

INSTALL BATTERY

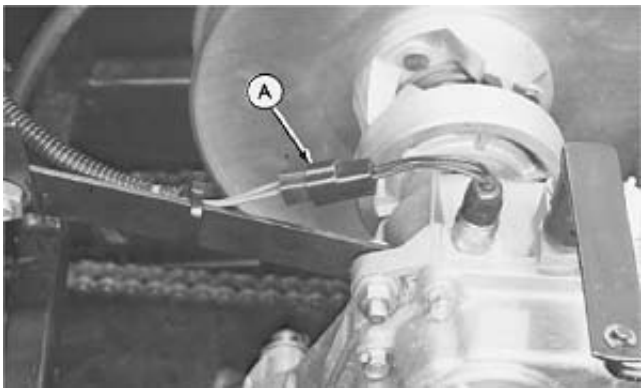
1. Install battery as removed, connecting negative battery cable (A) last.

2. Tighten battery protective cover hold-down nuts evenly.

W14698 -UN-28JUN89

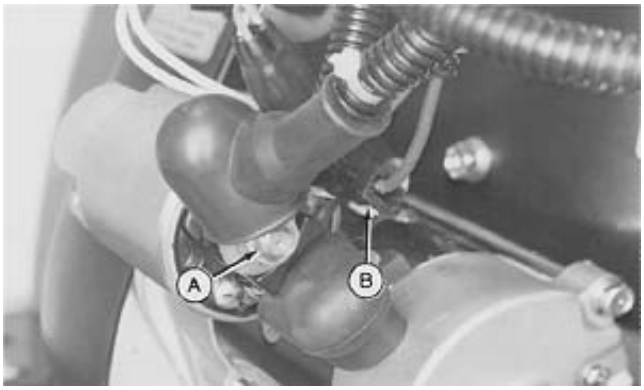
WXA,040010,2 -19-09MAY90

4. Disconnect neutral start switch at connector (A).



WXA,040020,5 -19-09MAY90

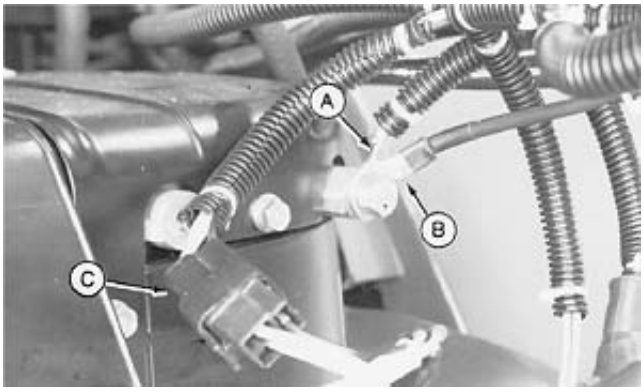
5. Disconnect terminals from starter solenoid stud (A). Disconnect blade connector (B).



WXA,040020,6 -19-09MAY90

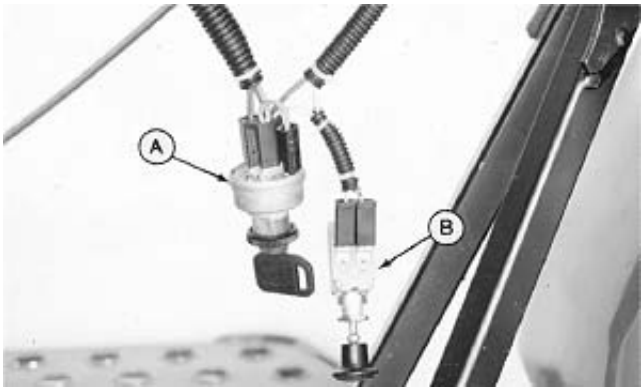
6. Disconnect two terminals (A and B) from engine cap screw.

7. Disconnect connector (C) from engine harness.



WXA,040020,7 -19-09MAY90

8. Remove ignition switch (A) and light switch (B) from wiring harness.



WXA,040020,8 -19-09MAY90

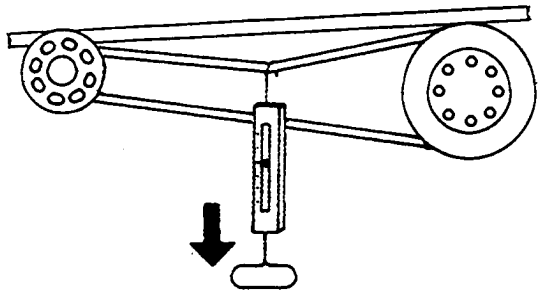
OTHER MATERIAL

Number	Name	Use
	Key Stock, 3/8 in. by 610 mm (24 in. long)	Align pulleys.
T43512	John Deere Thread Lock and Sealer (Medium Strength)	Secure ramp shoes.

MX,5005FD,A1 -19-31JUL91

CHECK DRIVE BELT TENSION

1. Place a straight edge along top of belt.
2. Tension belt with 45 N (10 lb) force.
3. Belt deflection should be 38—42 mm (1.5—1.75 in.).



RW12427 -UN-04MAY89

MX,5005FD,A2 -19-31JUL91

REPLACE CHAIN TIGHTENER IDLER

CAUTION: Help prevent bodily injury due to falling cargo box, install support rod when box is raised.

1. Raise cargo box and install support rod.

2. Remove protective cover from battery and disconnect ground cable.

3. Raise box and remove adjustment nuts and washers (A).

4. Slide bracket over lower frame rail to remove.

W14979 -UN-28JUN89

RW12170 -UN-21NOV88

RW12413 -UN-21NOV88

WXA,050010,D -19-09MAY90

19. Install snap ring (A) cup washer, washers, and nut.

20. Tighten till snap ring seats in first groove.

21. Remove clamping device, snap ring, spacer, and ramp plate.

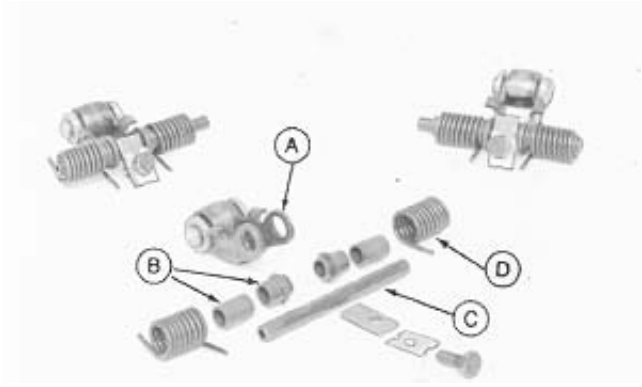
22. Movable face must slide freely on hub. Correct binding by lightly tapping spider on top of leg that binds in movable face bushing.

MX,5015FD,A4A -19-31JUL91

ASSEMBLE DRIVE PULLEY

1. Assemble roller arms.

A—Roller Arm
B—Sleeves
C—Shaft
D—Spring

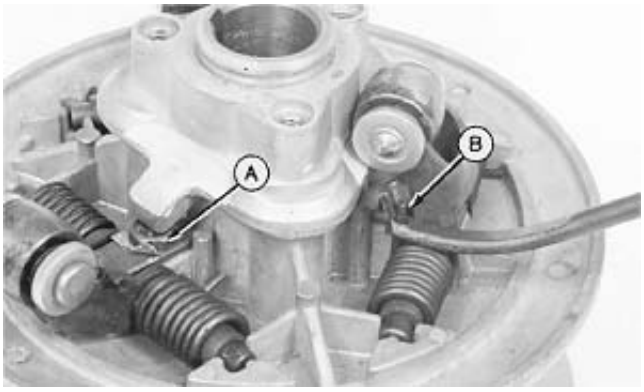


WXA,050015,P -19-09MAY90

2. Install roller arm assembly onto movable pulley half.

3. Tighten retaining cap screws (A) to 8 N·m (72 lb-in.). Bend tab to lock.

4. Raise moveable pulley against spider and hook springs (B) behind tab of roller arm with JDM-4A Clutch Spring Tool.



MX,5015FD,A5 -19-31JUL91

5. Install ramp plate (A) and snap ring (B).

6. Install locking ring (C) between washers and cap screws.

7. Tighten cap screws to 13 N·m (108 lb-in.) and bend tab to lock.

MX,5015FD,A6 -19-31JUL91

3. Drive spring pin from shift arm and remove arm.

WXA,050025,8 -19-09MAY90

4. Remove spring pin and remove differential arm.

On AMT600 arm is on left-hand side as shown.

On AMT622/626 arm is on right-hand side.

MX,5025FD,A3 -19-31JUL91

50
25
3

DISASSEMBLE TRANSAXLE

1. Drain oil from transaxle.

IMPORTANT: Grease shafts to avoid tearing seals and O-ring when separating case.

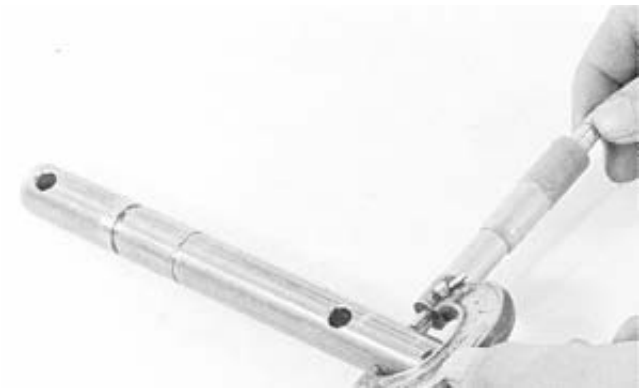
2. Remove cap screws from housings and separate with a screw driver and rubber hammer.

WXA,050025,10 -19-09MAY90

7. Inspect lock shaft for scoring of wear.

8. OD at fork seating area is 19.95—20.00 mm (0.785—0.787 in.)

9. Maximum lock shaft-to-fork clearance is 0.5 mm (0.02 in.).



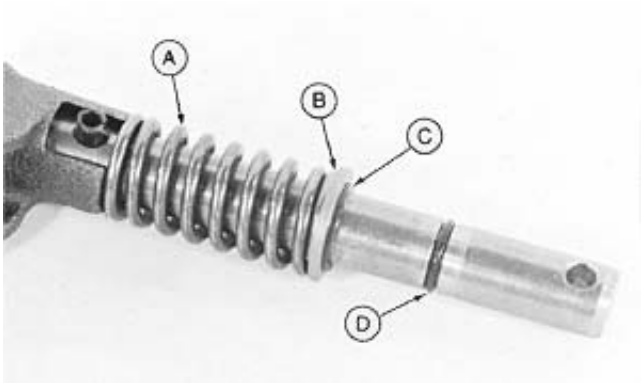
WXA,050025,37 -19-09MAY90

ASSEMBLE DIFFERENTIAL LOCK SHAFT

1. Install snap ring (C), washer (B), and spring (A).

2. Grease shaft and install O-ring (D).

A—Spring
B—Washer
C—Snap Ring
D—O-Ring



WXA,050025,38 -19-09MAY90

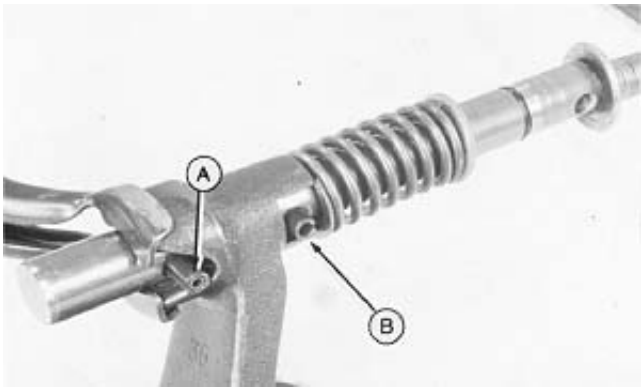
3. Assemble fork to shaft and mount in a vice.

4. Compress spring using a valve spring compressor.

5. Install double spring pin (A) with split facing away from shaft fork.

NOTE: If spring pin (B) is double, it must be replaced with a double pin.

6. Install single spring pin (B) with split facing spring.



MX,5025FD,A6 -19-31JUL91

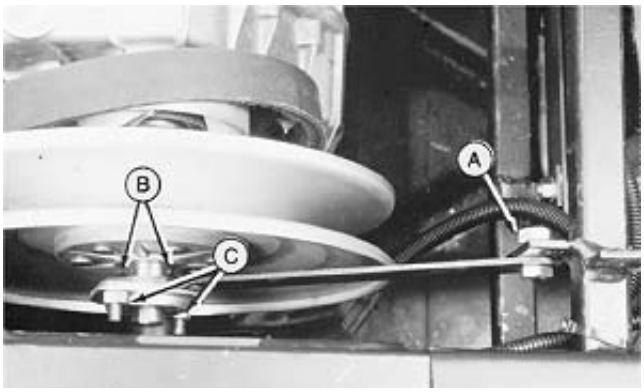
14. Loop drive belt over pulley.

15. Install input shaft bearing with support strap to clutch side. Tighten frame mounting cap screw (A) to 50 N·m (37 lb-ft).

16. Tighten bearing set screws (B) with bearing tight against clutch.

17. Tighten bearing retainer nuts (C).

18. Install drive belt. (See Group 05 in this section.)



RW12179 -UN-21NOV88

MX,5025FD,A16 -19-31JUL91

19. Install lower mount (D) to transaxle. Tighten cap screw to 50 N·m (37 lb-ft).

20. Install upper support (E) to transaxle. Tighten cap screws to 50 N·m (37 lb-ft).

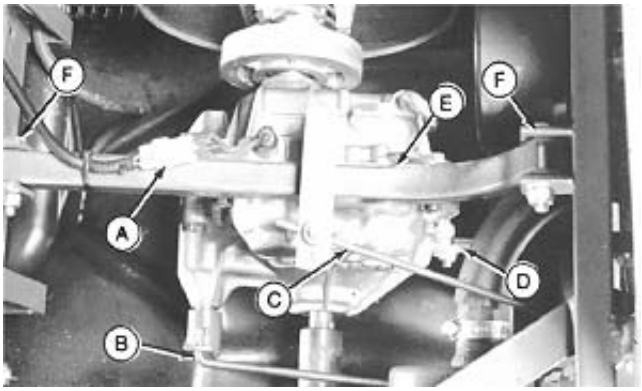
IMPORTANT: Do not squeeze mounting ears together.

21. Install support-to-frame cap screws and nuts. Tighten until snug against mounting ears (F).

22. Connect parts (A—C). Attach wiring harness and/or brake cables to support and frame using tie straps.

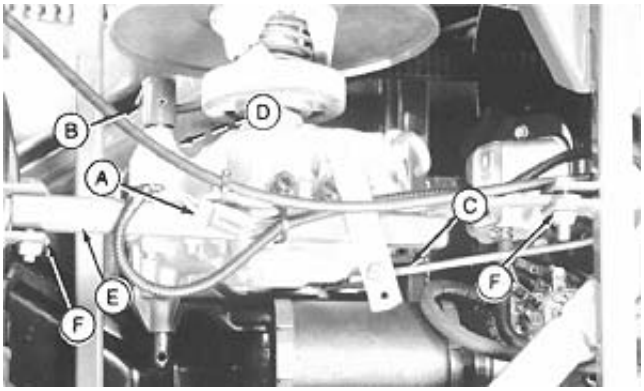
23. Install drive chains. (See Group 10 in this section.)

A—Neutral Start Connector
B—Differential Lock Rod
C—Shift Rod
D—Lower Transaxle Mount
E—Upper Transaxle Support
F—Mounting Ears



M80218 -UN-08JUL91

AMT600



M80219 -UN-08JUL91

AMT622/626

MX,5025FD,A17 -19-31JUL91

50
25
23

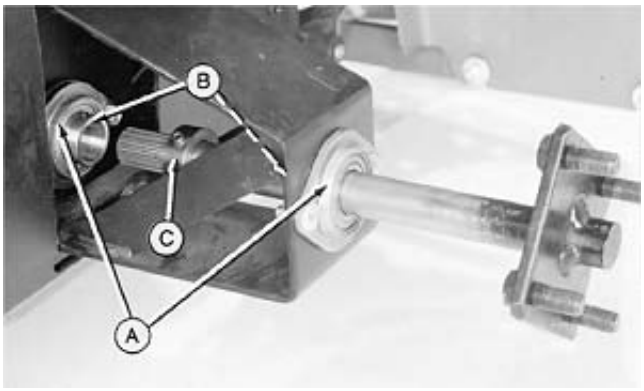
INSTALL FORWARD DRIVE AXLE(S)—WITHOUT AXLE UPDATE KIT

NOTE: AMT without Axle Update Kit installed will have 930 mm (37 in.) (AMT600) or 1090 mm (43 in.) (AMT622) center to center tread width.

1. Mount bearings against outside of frame and axle support with large retainer flange (A) facing away from mounting surfaces. Leave nuts loose.

2. Bearing shoulders with set screws (B) must face together.

3. Apply NEVER-SEEZ lubricant to axles and install with retaining collar (C) between bearings.

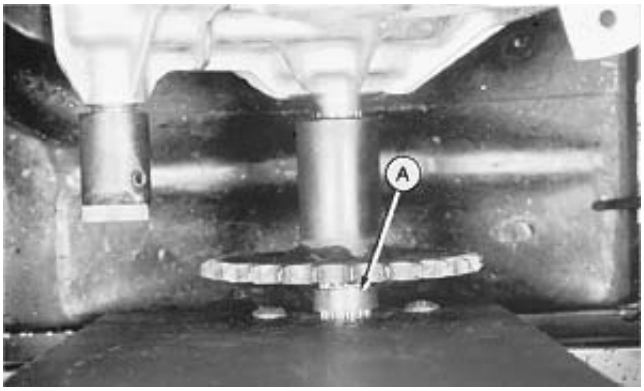


RW12159 -UN-21NOV88

MX,5030FD,A2B -19-31JUL91

4. Install spacer (A) on axle between frame and chain sprocket.

5. Push axle into sprocket.



RW12160 -UN-21NOV88

WXA,050030,5 -19-09MAY90

REMOVE FORK

1. Remove wheel and yoke.

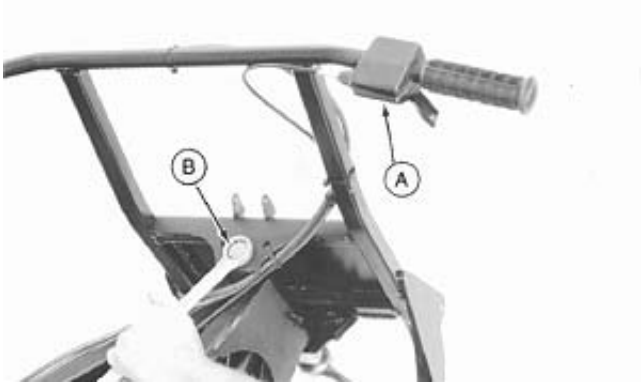
2. Remove seat and shroud on AMT600 or front shroud on AMT622/626.

3. Remove brake actuating lever on AMT600.

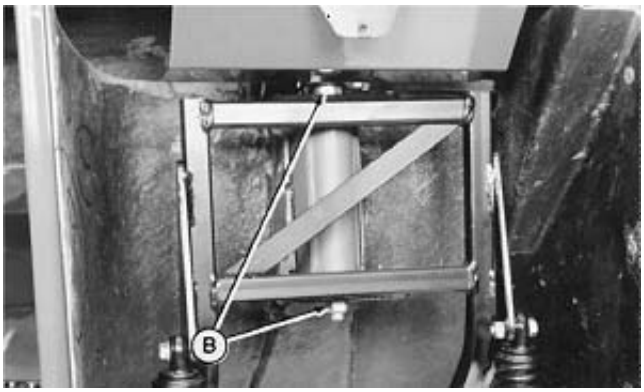
4. Remove throttle (A) and grip from handlebar on AMT600.

5. Remove headlamp on AMT600.

6. Remove pivot cap screw (B) to remove fork.



AMT600



AMT622/626

MX,6005FD,A4 -19-31JUL91

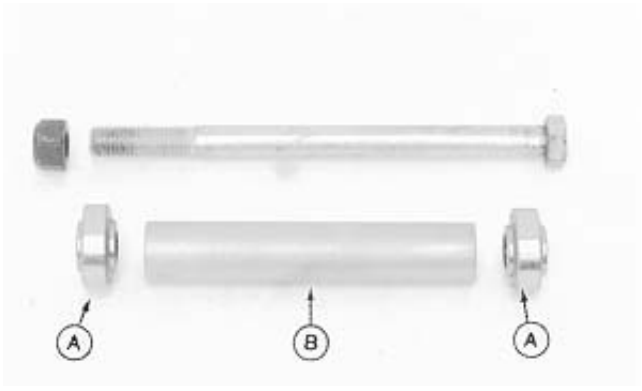
INSPECT FORK

1. Remove bearings (A) and sleeve (B) from frame.

2. Roll bearings to check for roughness.

3. Inspect sleeve for wear.

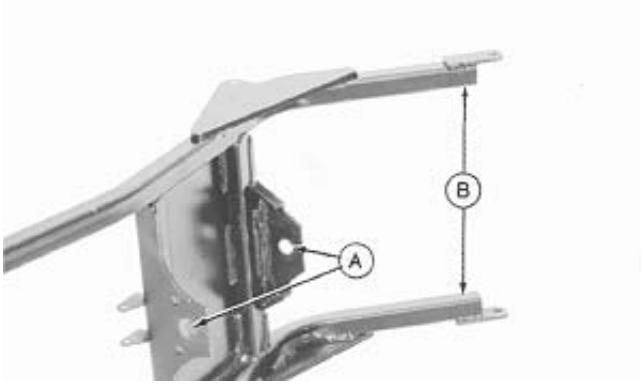
4. Inspect cap screw for cracks or stripped threads.



WXA,060005,7 -19-09MAY90

5. Inspect fork for worn areas at pivot points (A) and yoke support (B).

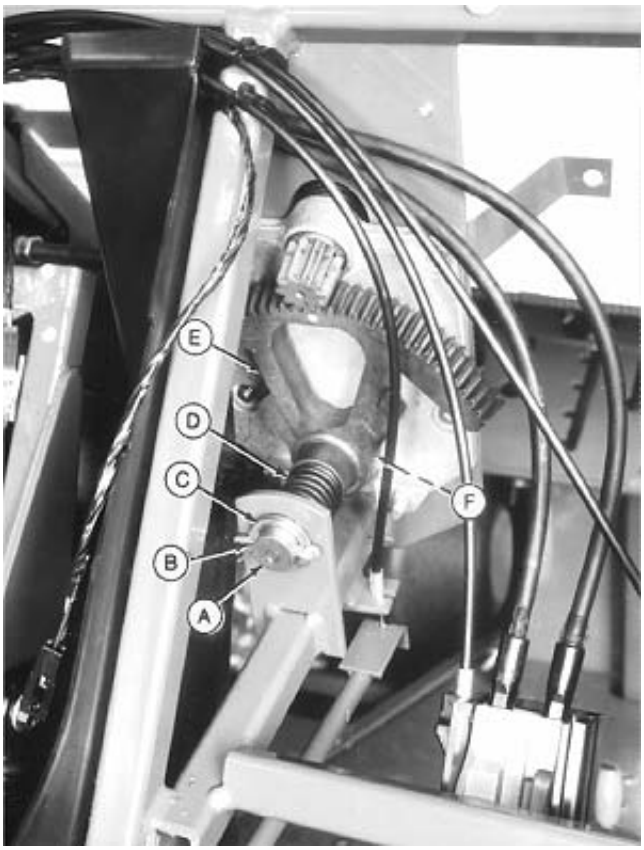
6. Inspect fork for cracks or bent areas.



WXA,060005,8 -19-09MAY90

8. Install quadrant shaft (A) through quadrant gear with cotter pin bore (B) parallel to floor surface.

9. Install washer (C) and cotter pin.



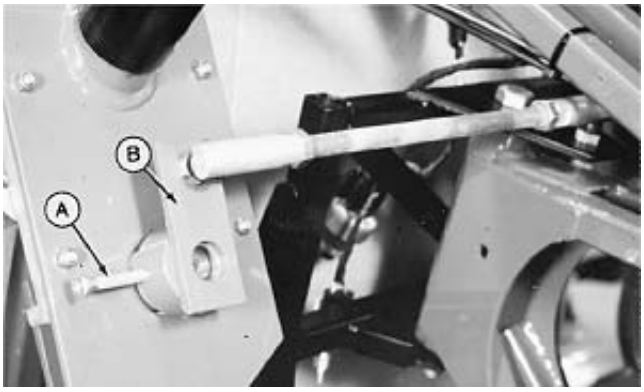
MX,6010FD,A11 -19-31JUL91

10. Install steering linkage (B) using serrated screw (A) and lock nut.

11. Adjust steering linkage, if necessary. (See this group.)

12. Install front shroud and dash. (See Section 80, Group 10.) Tighten choke bracket (See Step 2).

13. Install steering wheel. (See Section 80, Group 10.)

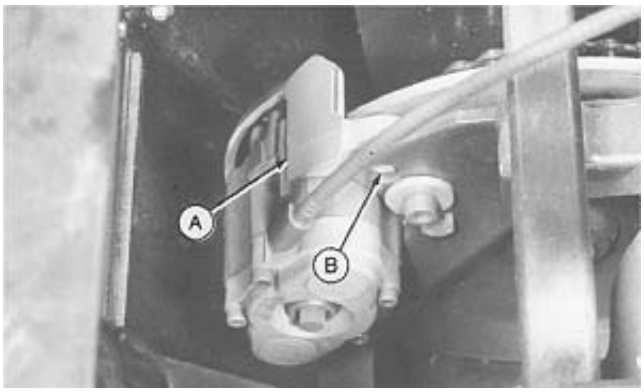


MX,6010FD,A12 -19-31JUL91

REPLACE BRAKE PADS

1. Release park brake.

2. Remove four socket head cap screws. Slide bracket (A) toward disc to clear dowel pins (B) and remove caliper assembly.



MX,6015FD,A10 -19-31JUL91

3. Measure brake pad thickness. Replace both pads if either is less than 1.50 mm (0.060 in.) thick:

- Remove pads from caliper.
- Clean glue residue from caliper.
- Apply automotive disc brake pad adhesive to backing plate of brake pad.
- Install brake pads in caliper.

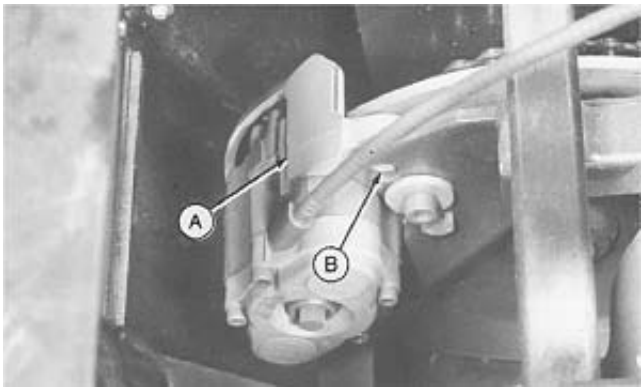
MX,6015FD,A11 -19-31JUL91

4. Turn adjusting nut (A) counterclockwise to open gap between brake pads until gap is wide enough to fit over brake disc.

MX,6015FD,A12 -19-31JUL91

5. Install caliper assembly. Insert dowel pins (B) on bracket (A) into mounting plate.

6. Install socket head cap screws. Tighten to 24 N·m (216 lb-in.).



MX,6015FD,A13 -19-31JUL91

REMOVE SEAT ASSEMBLY

CAUTION: Help prevent bodily injury due to falling cargo box, install support rod when box is raised.

1. Remove cap screws (B) and slide assembly rearward and up to remove.

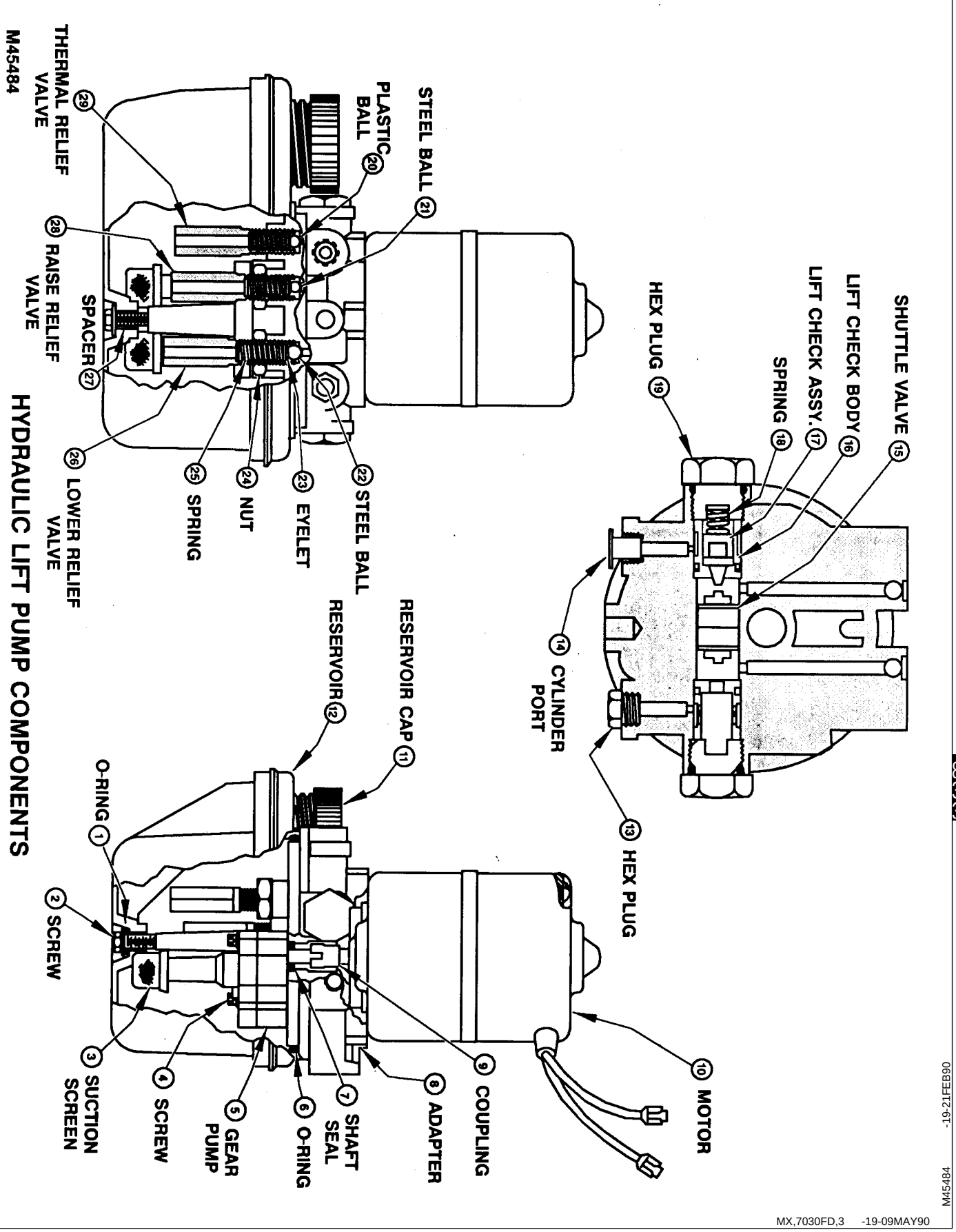
2. Reverse steps to replace.

W14979 -UN-28JUN89

W14709 -UN-28JUN89

MX,8010FD,A2 -19-31JUL91

80 10 5



MX,7030FD,3 -19-09MAY90

80
30
3

18 **BRAKE-PARK BRAKE CHECK**

Operator on seat.

Run engine at slow idle.

RW12360 -UN-21NOV88

Squeeze brake lever. Move park brake knob to lock position.

Move shift lever to forward, advance throttle 1/4 open.

Release throttle and shift to reverse, move throttle 1/4 open.

FEEL: Transporter must NOT move.

OK: GO TO **19**

NOT OK: GO TO SECTION 260, GROUP 15.

MX,21010FD,A19 -19-09MAY90

19 **BRAKE OPERATIONAL CHECK**

Operate transporter on dry, level surface.

Move shift lever to forward.

Move throttle lever to full throttle position.

M45149 -UN-31AUG88

Apply brakes firmly.

FEEL/LISTEN: Transporter must stop smoothly and quietly. Brake cables must not bind.

LOOK: Brake lever must not contact handle grip. Both sides of rear wheels must stop evenly.

M45150 -UN-31AUG88

Disengage brake lever.

LOOK: Brake lever must not contact brake lever cover at point (A).

Move throttle lever to full throttle position.

FEEL/LISTEN: Brakes must not drag or make any noise.

OK: GO TO **20**

NOT OK: GO TO SECTION 260, GROUP 15.

MX,21010FD,A20 -19-09MAY90

20 **CALIPER SELF ADJUSTMENT CHECK**

Engine OFF.

M45151 -UN-31AUG88

Turn adjusting screw (A) counterclockwise approximately 10 turns.

Squeeze brake lever several times.

LOOK/FEEL: Adjusting screw must turn clockwise until brake lever feels firm.

OK: GO TO **21**

NOT OK: GO TO SECTION 260, GROUP 15.

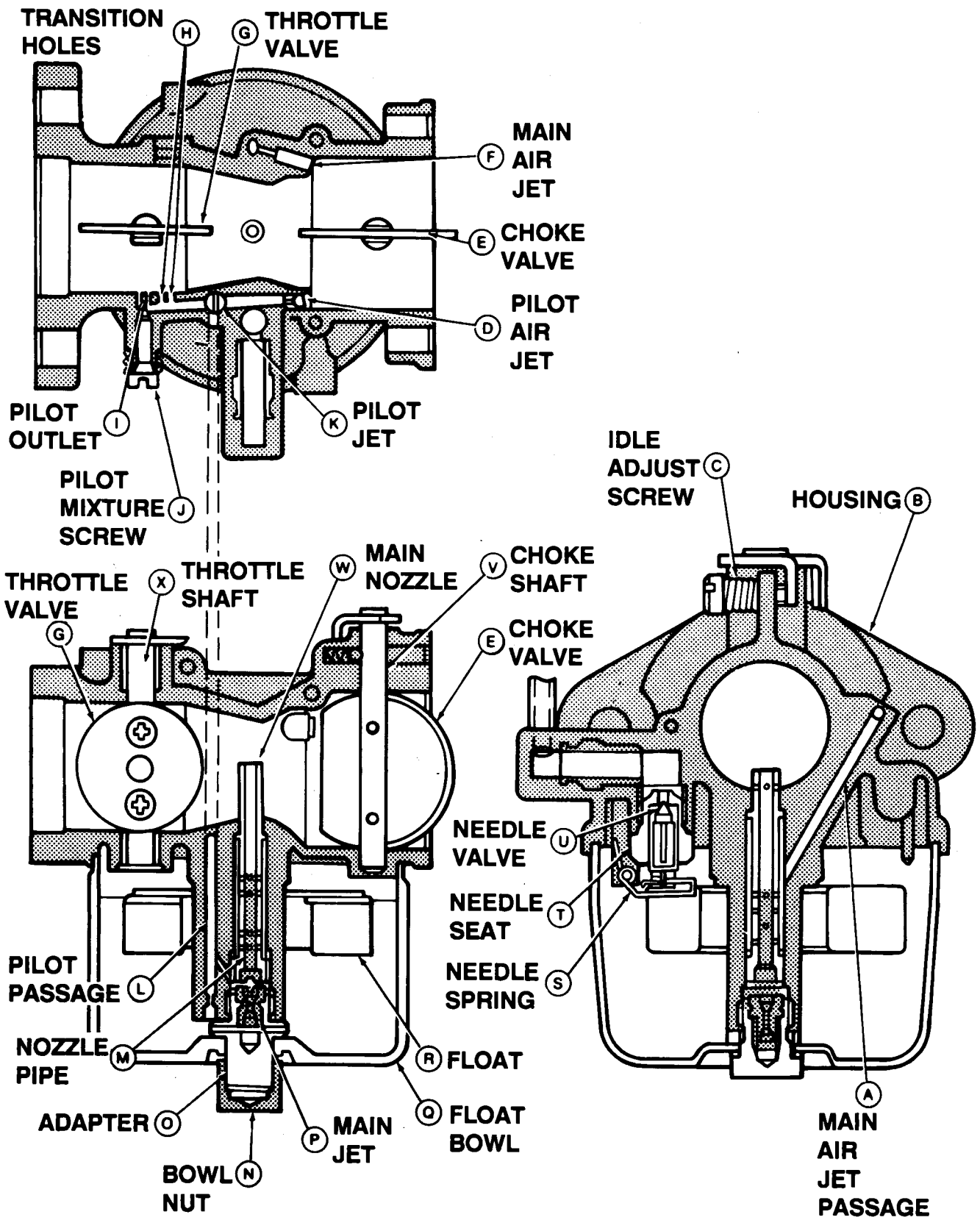
MX,21010FD,A21 -19-09MAY90

COMPONENT LOCATION INFORMATION

This group contains component location drawings for the following engine, fuel, and air components:
—KF82D/FZ340D Engine Internal Components
—Fuel and Air Components
—AMT 600 Fuel System
—Carburetor

Use the drawings when troubleshooting an engine problem to help locate the components to be tested.

MX,22005FD,1 -19-09MAY90



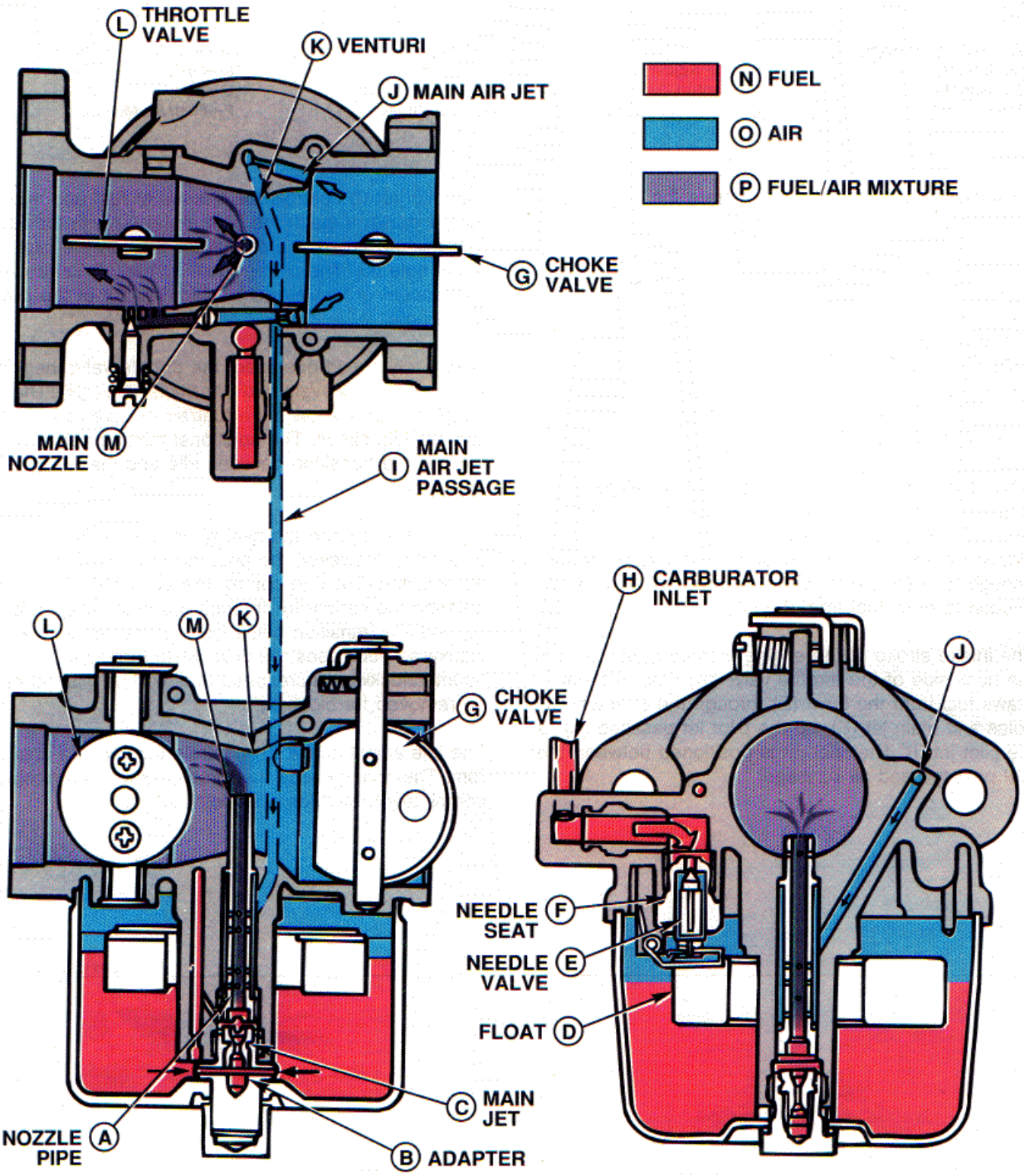
CARBURETOR COMPONENTS

220 05 9

-19-04APR90

M45507

MX,22005FD,9 -19-29AUG91



MXC45511

CARBURETOR FLOAT AND MAIN CIRCUIT

MXC45511 -19-

MX,22010FD,9 -19-29AUG91

220 10 9

300891

ENGINE DIAGNOSTIC INFORMATION

The diagnostics in this group test components related to a specific problem. Select the appropriate symptom heading that applies to your problem and follow the test procedures under that heading. The symptom headings are:

—Engine cranks but will not start
—Engine flooding
—Lack of fuel in carburetor
—Engine stops when hot
—Engine surging
—Engine backfires through carburetor
—Engine backfires through muffler when shut OFF
—Engine misses
—Engine loses power or runs rough when hot
—Engine has black exhaust smoke
—Engine has blue exhaust smoke or oil in air cleaner
—Engine uses too much oil

The diagnostic procedure lists:
—Test conditions
—Test sequence
—Test/check point
—Normal reading
—Checks or test to perform if reading is not normal

When performing the test or check, be sure to follow the test conditions and sequence carefully. The middle “NORMAL” column gives the normal reading or condition that should be obtained when performing the test or check. If the results of the test or check are not normal, perform the test, check, or adjustment listed in the third “IF NOT NORMAL” column to repair the malfunction. The detailed tests or adjustments referred to in the “IF NOT NORMAL” column are located at the end of this group.

MX,22015FD,1 -19-09MAY90

220
15
1

ENGINE HAS BLACK EXHAUST SMOKE

TEST CONDITIONS: (Unless otherwise specified)

- Transaxle In Neutral
- Park Brake Locked

TEST/CHECK POINT	NORMAL	IF NOT NORMAL
1. air cleaner elements	not restricted or damaged	clean or replace elements
2. carburetor - check choke adjustment	fully open with choke knob pushed fully inward	adjust choke
3. carburetor - inspect needle and seat	not worn	replace needle and seat
4. carburetor - inspect float and check float level	no fuel inside float float parallel with body with needle spring not compressed	replace or adjust float
5. carburetor - check main jet size	correct for elevation	replace jet with correct size
6. fuel pump - test	6 kPa (0.09 psi) at fast idle	test crankcase pressure replace fuel pump

MX,22015FD,11 -19-09MAY90

220
15
11

VALVE CLEARANCE ADJUSTMENT

TEST SPECIFICATION

Intake Valve Clearance (cold)	0.10-0.20 mm (0.004-0.008 in.)
Exhaust Valve Clearance (cold)	0.10-0.20 mm (0.004-0.008 in.)

TEST EQUIPMENT

Feeler Gauge

IMPORTANT: Make adjustment when engine is cold.

1. Remove spark plug.

2. Turn crankshaft until the intake valve (A) opens and then closes. Turn the crankshaft one more revolution. The piston (visible in spark plug hole) must be at the TDC (top dead center) of the compression stroke.

3. Use a feeler gauge (B) to measure valve clearance.

4. If valve clearance does not meet the specifications, change the tappet cap. Install a thicker or thinner tappet cap, determined from the chart below as needed. Adjust the valve clearance to 0.15 ± 0.05 mm (0.006 ± 0.002 in.).

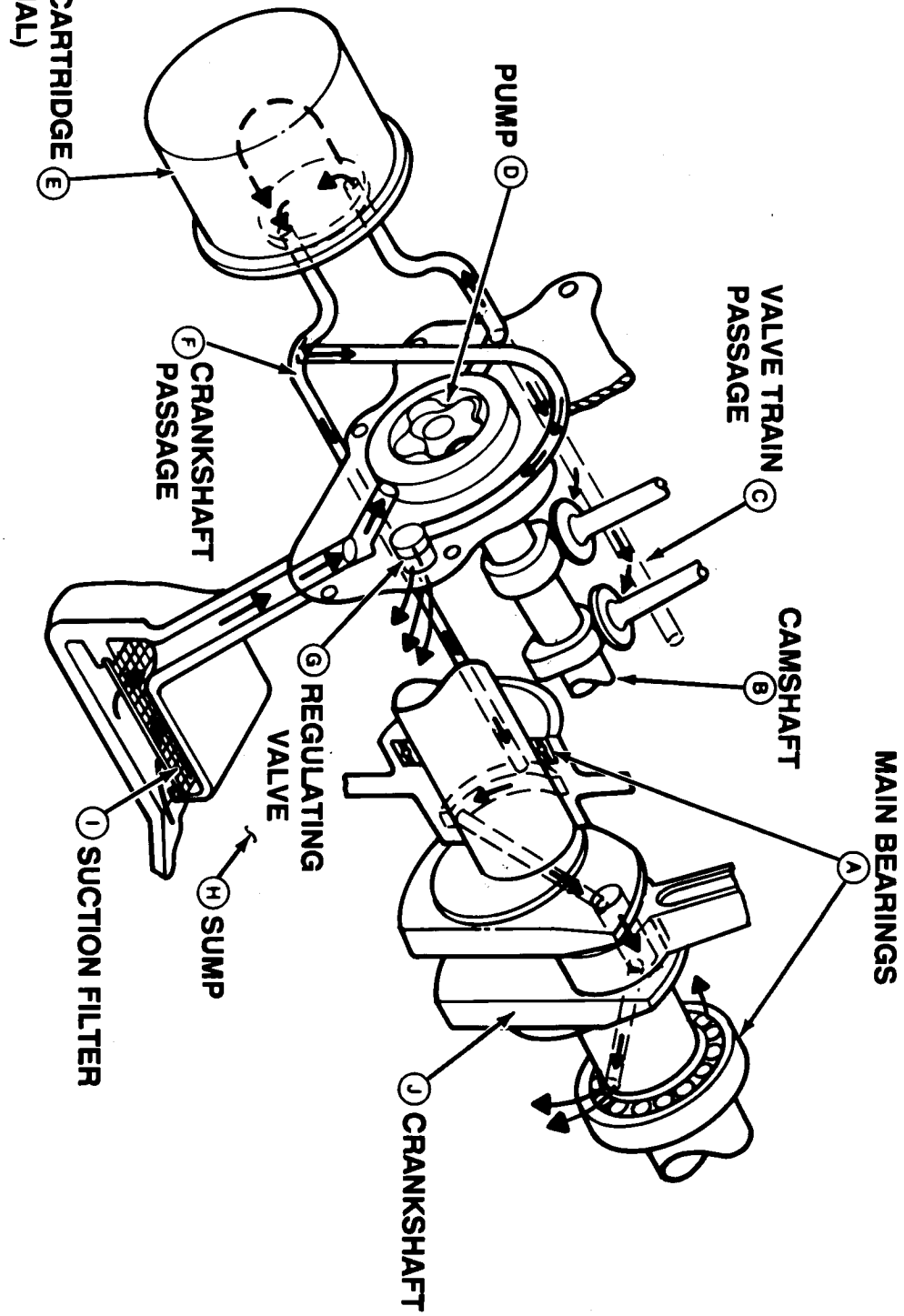
5. Determine thickness of old cap by finding its stamp in the table.

6. Install a thicker or thinner cap as needed for proper valve clearance.

Slide M45557

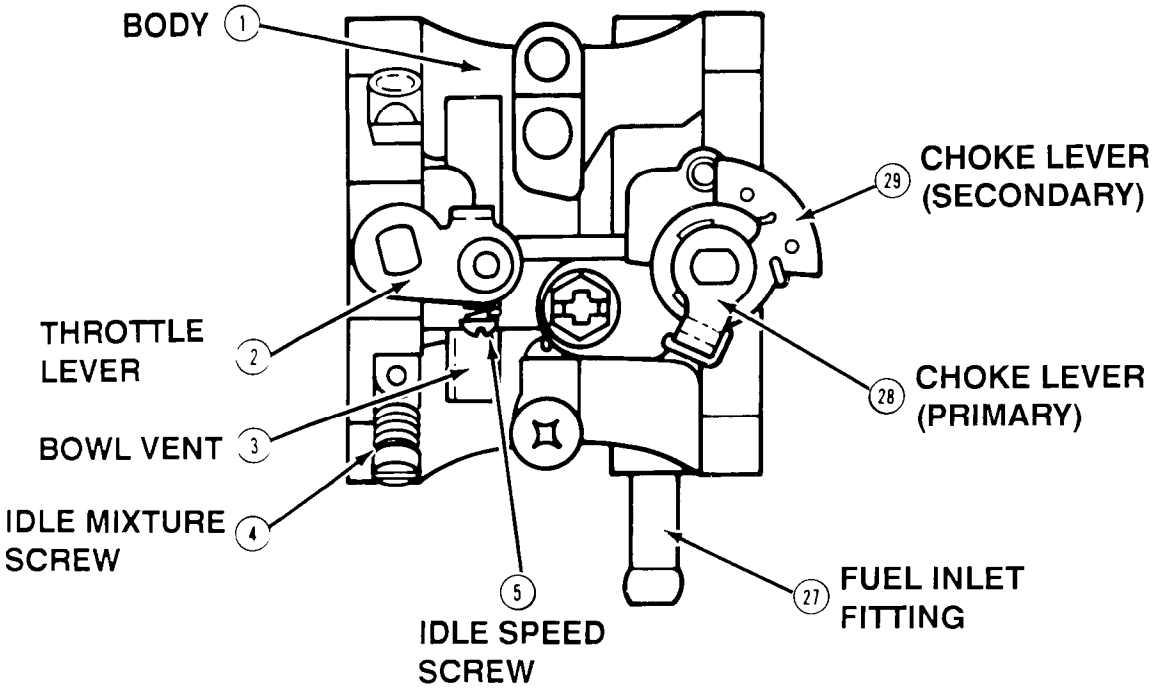
Stamp	Thickness
1	2.70 mm (0.106 in.)
2	2.75 mm (0.108 in.)
3	2.80 mm (0.110 in.)
4	2.85 mm (0.112 in.)
5	2.90 mm (0.114 in.)
6	2.95 mm (0.116 in.)
7	3.00 mm (0.118 in.)
8	3.05 mm (0.120 in.)
9	3.10 mm (0.122 in.)
10	3.15 mm (0.124 in.)
11	3.20 mm (0.125 in.)
12	3.25 mm (0.128 in.)
13	3.30 mm (0.130 in.)
14	3.35 mm (0.132 in.)
15	3.40 mm (0.134 in.)
16	3.45 mm (0.136 in.)
17	3.50 mm (0.138 in.)
18	3.55 mm (0.140 in.)
19	3.60 mm (0.142 in.)
20	3.65 mm (0.144 in.)

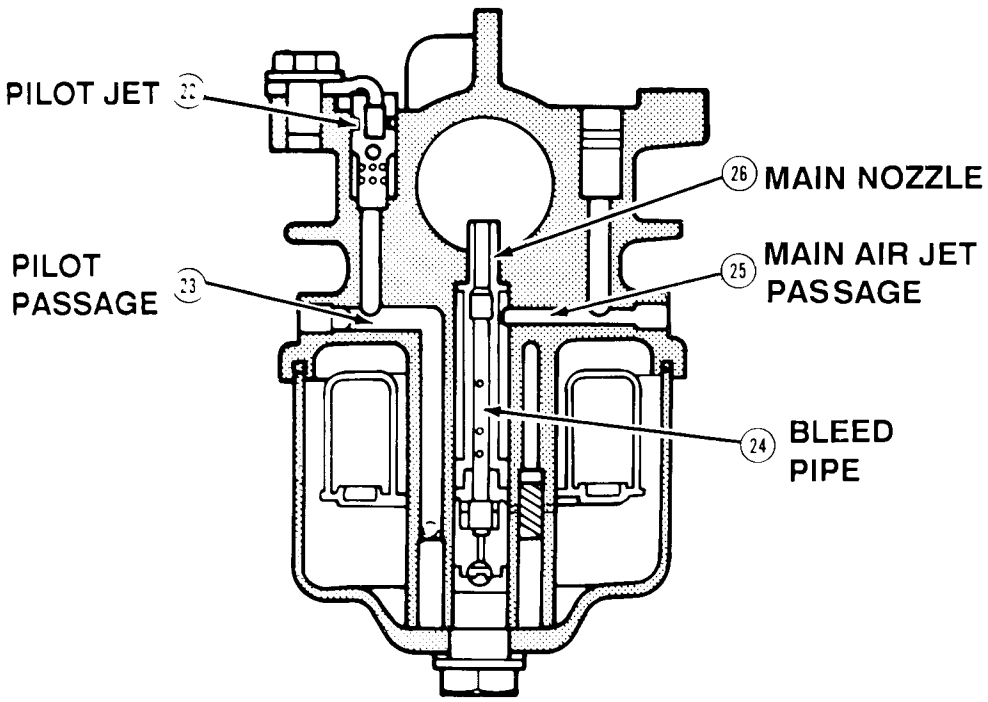
MX,22015FD,23 -19-29AUG91



FE290D ENGINE LUBRICATION SYSTEM COMPONENTS

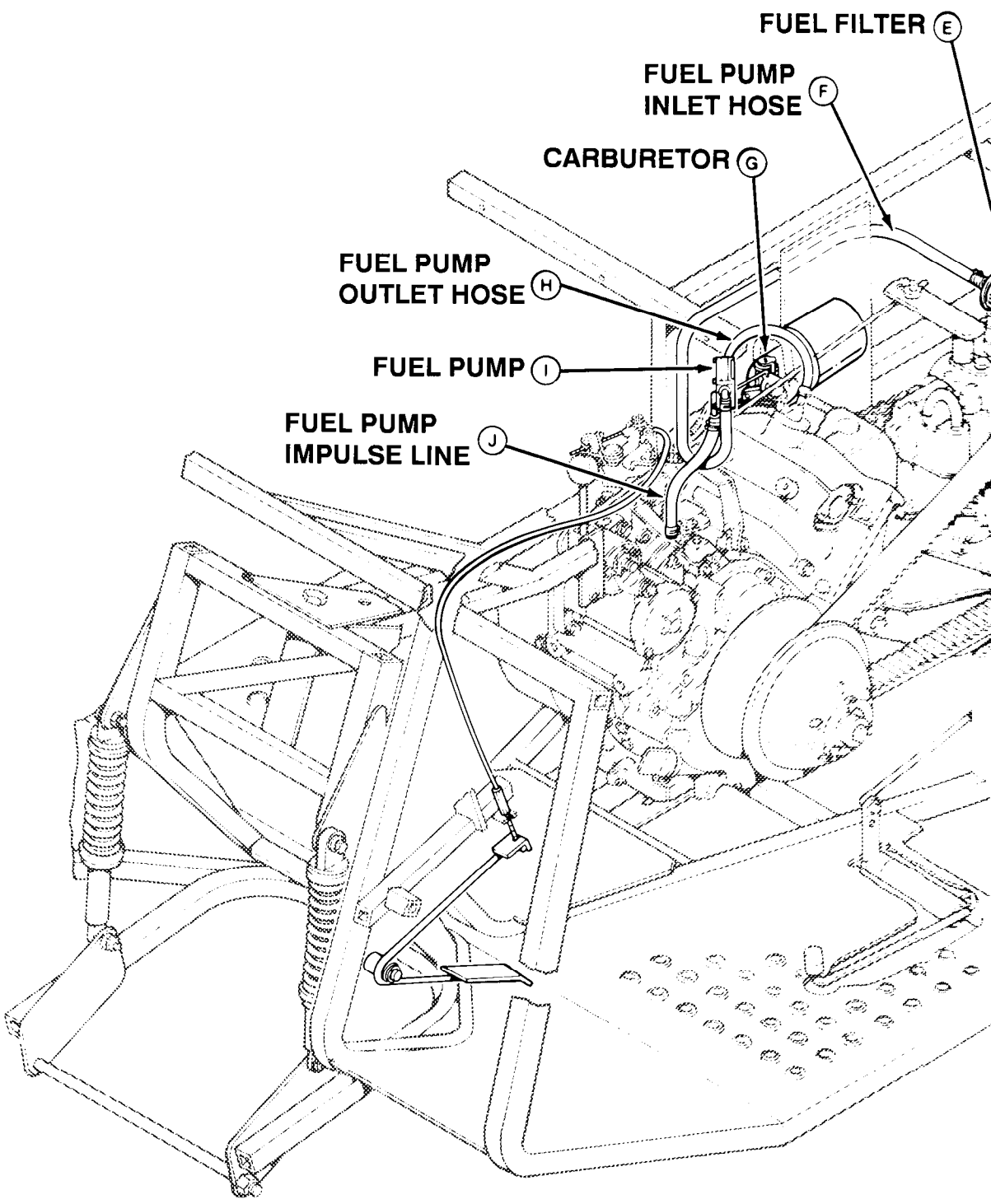
MX,22505FD,5 -19-29AUG91





TOR COMPONENTS

FUEL



M48793

AMT622/626 FUEL SYSTEM OP

MX,22510FD,A3 -19-29A -G9-

300693

GOVERNOR OPERATION

A—Governor Lever
B—Throttle Lever
C—Carburetor
D—Throttle Link
E—Low Idle adjustment Screw
F—Control Lever
G—Control Panel
H—High Idle Adjustment Screw
I—Governor Spring
J—Sleeve
K—Fly-weights
L—Governor Gear
M—Governor Shaft

Slide M48797

FUNCTION: Limit the maximum speed of the engine and regulate throttle valve position to match the engine load.

MAJOR COMPONENTS:

—Fly-Weights
—Governor Lever
—Sleeve
—Control Panel
—Spring

SYSTEM OPERATION:

The governor is of fly-weight design. The fly-weights (K) are attached to the governor gear (L) and is driven by a gear on the crankshaft.

When the engine starts and speed increases, centrifugal force causes the fly-weights to pivot outward. The fly-weights push against sleeve (J) which pushes against governor shaft (M) causing it to rotate. Governor lever (A), which is clamped to the governor shaft, also begins to rotate in a counter-clockwise direction (when viewed from the top of the engine looking down). Connected at the outer end of the governor lever is the throttle link (D) and the governor spring (I). The throttle link is connected to throttle lever (B) which controls the throttle valve of carburetor (C). The throttle plate closes the further the governor lever rotates counter-clockwise. The governor spring is connected to the control lever (F) on the control panel (G). Pressing on the foot throttle of the AMT rotates the control lever which pulls on the governor spring. The increased tension of the governor spring pulls the governor lever clockwise which opens the throttle valve. The engine speed is stabilized when the spring force matches the governor fly-weight force.

Low idle engine speed is controlled by low idle adjustment screw (E). High idle and maximum engine speed is controlled by high idle adjustment screw (H).

When the engine is stopped, the governor spring pulls on the governor arm and throttle control link to open the throttle valve completely. Since the engine is not operating, the governor arm and shaft rotate and push the fork against the sleeve. The sleeve pushes the flyweights inward. The fly-weights and the throttle valve are now in the engine start position.

When the engine is at a “NO LOAD” condition, the fly-weight force is greater than the governor spring force. In this condition, the fly-weight linkage determines throttle valve position. The flyweight linkage moves the throttle valve to a partially closed position to reduce engine speed.

When the engine is at a “LOAD” condition, the fly-weight force decreases as engine rpm decreases, so the governor spring force is greater than the fly-weight force. Now the governor spring force determines throttle valve position. The governor spring moves the throttle valve open slightly which increases engine speed to match the load.

MX,22510FD,19 -19-29AUG91

225
10
18

ENGINE BACKFIRES THROUGH MUFFLER WHEN ENGINE IS SHUT OFF

NOTE: Allow engine to idle for 15 seconds before shutting engine off.

TEST CONDITIONS: (Unless otherwise specified)

- Transaxle In Neutral
- Park Brake Locked

TEST/CHECK POINT	NORMAL	IF NOT NORMAL
1. air cleaner assembly	not restricted or damaged	replace filter assembly
2. carburetor - check slow idle speed	carburetor set to 1200 RPM and governor set to 1300 RPM low idle	adjust low idle speed screw
3. carburetor - check low idle mixture adjustment	smooth idle at 1300 RPM	adjust idle mixture screw
4. ignition coil - test resistance check air gap	primary winding 0.67 to 1.10 ohm secondary winding 6 to 10 K ohm air gap 0.25 to 0.3 mm (0.010 to 0.012 in.)	adjust air gap replace coil
5. ignitor - try a different one	makes no difference in operation	replace ignitor
6. muffler	no damage or hot spots, no rattle if shaken	replace muffler

MX,22515FD,8 -19-09MAY90

225
15
8

COMPRESSION LEAK CHECK

1. Remove compression gauge.

2. Put clean engine oil on piston rings through spark plug hole.

3. Repeat cylinder compression test procedure.

—IF COMPRESSION PRESSURE INCREASES:

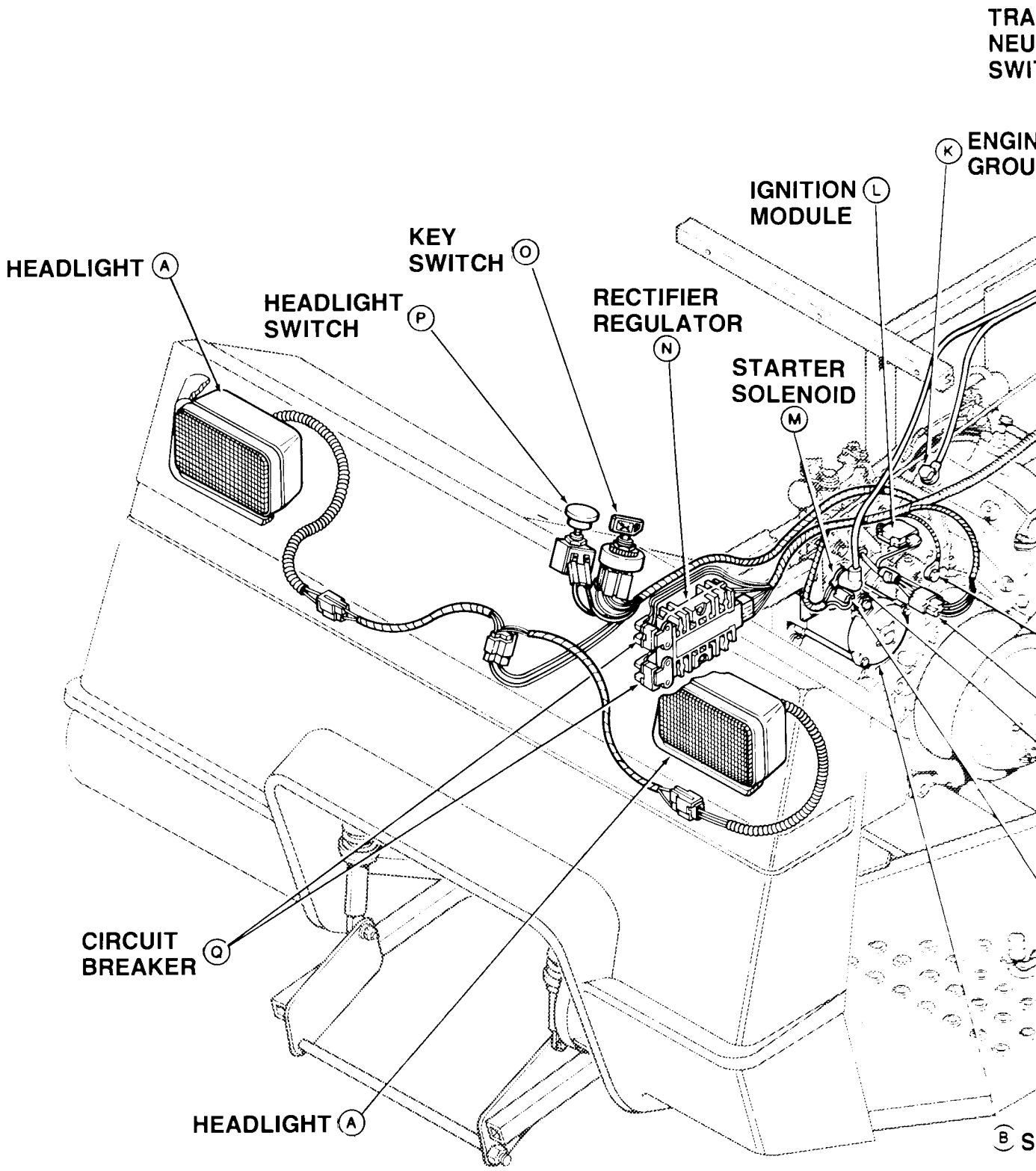
Check rings, piston and cylinder bore for broken rings, scoring, wear or damage. Replace as necessary.

—IF COMPRESSION PRESSURE IS STILL LOW:

Check for leaking intake or exhaust valves, valve seal or cylinder head gasket. Replace as necessary.

MX,22515FD,23 -19-09MAY90

225
15
18



M45491

AMT622/626 ELECTRICAL CO

MX,24005FD,A3 -19-29AUG91

300891

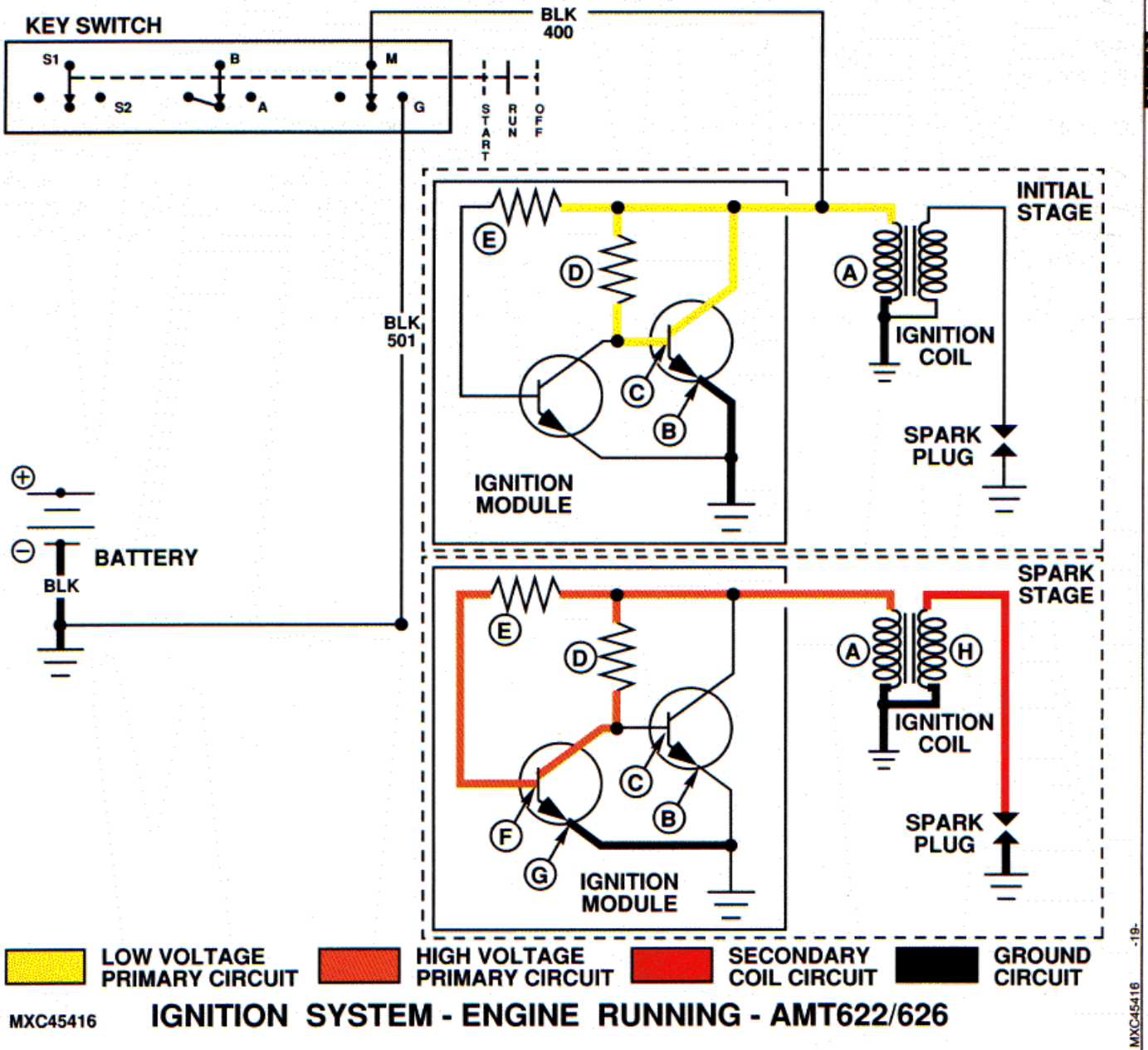
HYDRAULIC LIFT AND HOURMETER COMPONENT LOCATION

A—Lift Switch
B—Lift Relay Ground Cable
C—Lift Relay
D—Lift Motor
E—Lift Relay Positive Cable
F—Hourmeter
G—Key Switch
H—Light Switch
I—Hourmeter Ground

240
05
10

Slide M45500

MX,24005FD,10 -19-29AUG91



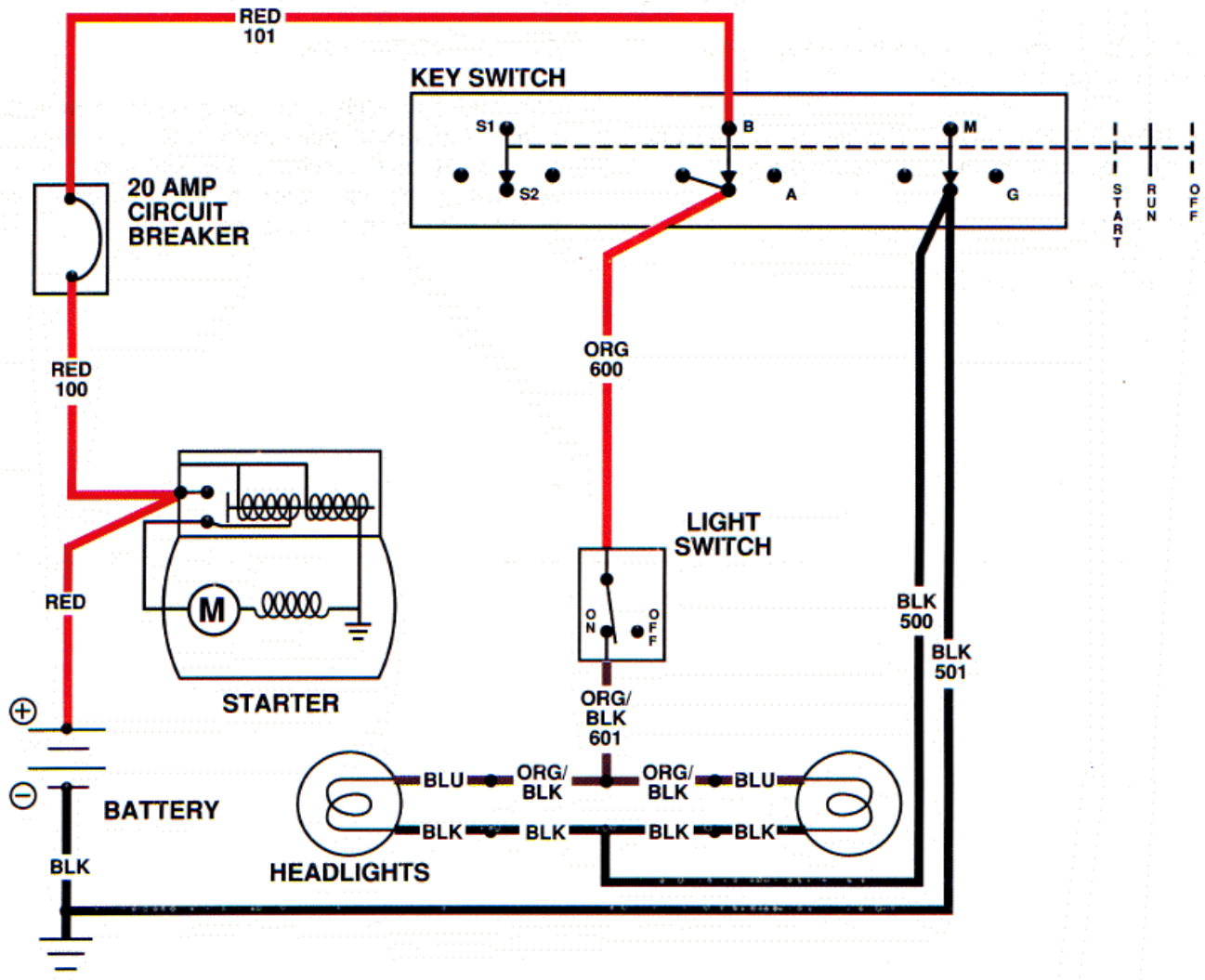
MXC45416

IGNITION SYSTEM - ENGINE RUNNING - AMT622/626

A—Primary Coil
B—Ground Path
C—Transistor Base
D—Resistor
E—Resistor
F—Transistor Base
G—Ground Path
H—Secondary Coil

Slide MXC45416

MX,24010FD,A2 -19-29AUG91



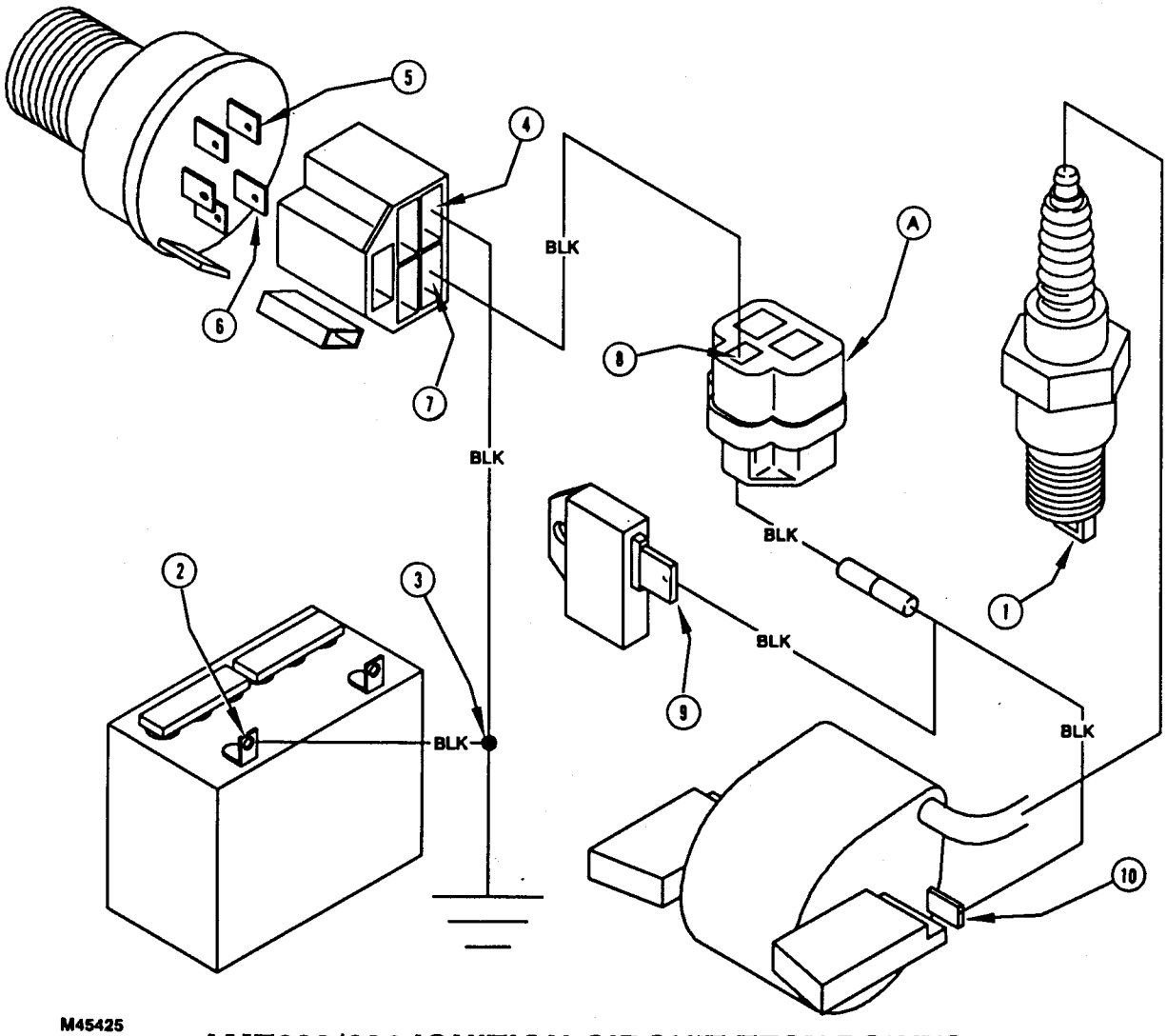
MXC45421

HEADLIGHT SYSTEM

Slide MXC45421

MXC45421 -19-

MX,24010FD,16 -19-29AUG91

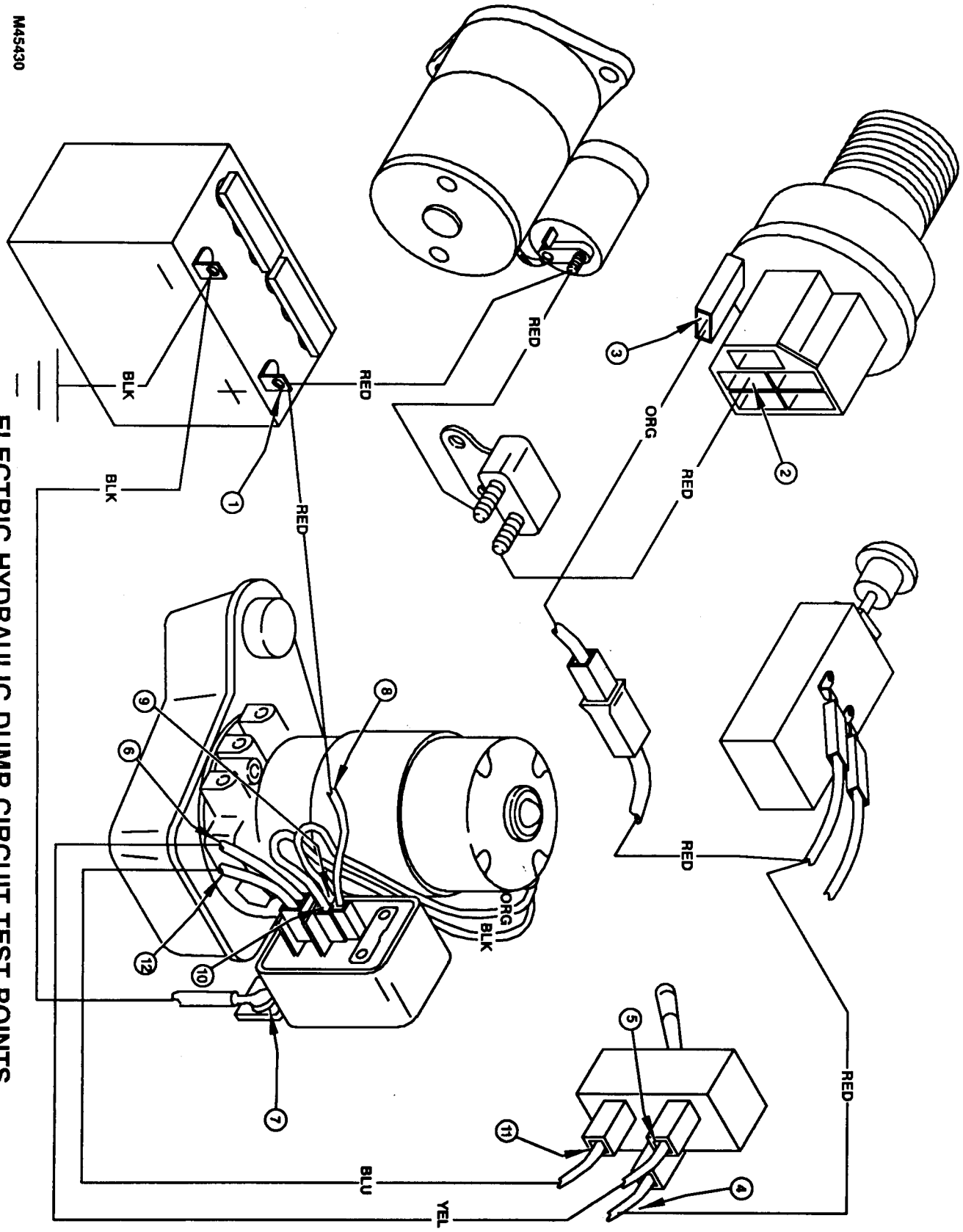


AMT622/626 IGNITION CIRCUIT TEST POINTS

Slide M45425

M45425 -19-08MAY91

MX,24015FD,A2 -19-29AUG91



MX,24015FD,15 -19-29AUG91

ADJUST IGNITION COIL AIR GAP—FE290D

SPECIFICATION

Ignition coil air gap . . . . . 0.3 mm (0.012 in.)

TEST EQUIPMENT

Feeler gauge

1. Remove engine shroud.

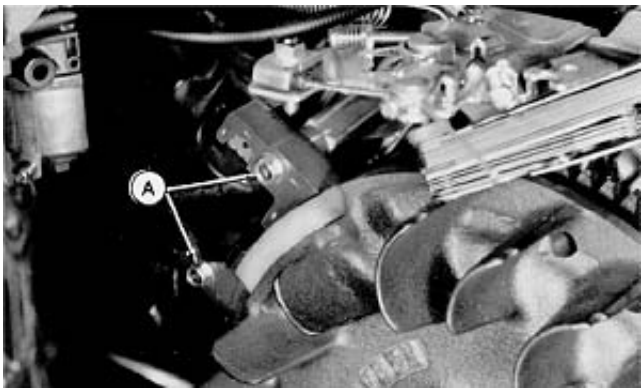
2. Turn flywheel magnet away from coil.

3. Loosen coil mounting screws (A).

IMPORTANT: Both coil legs must have the same air gap as the engine is very sensitive to this adjustment.

4. Insert a feeler gauge between flywheel and coil legs. Align flywheel magnet with coil. Adjust gap to 0.3 mm (0.012 in.), or if a misfire conditions exists, adjust gap to 0.25 mm (0.010 in.).

5. Remove slack from coil mounting screw holes by pushing coil to the full left position (opposite direction of engine rotation). Hold coil in this position and tighten coil mounting screws. Turn flywheel to remove feeler gauge.



Slide M45482

MX,24015FD,A4 -19-29AUG91

TEST IGNITION COIL—FE290D

SPECIFICATIONS

Primary lead and core resistance . . . . . 0.67 — 1.10 ohms
Spark plug lead and core resistance . . . . . 6 — 10 K ohms

TEST EQUIPMENT

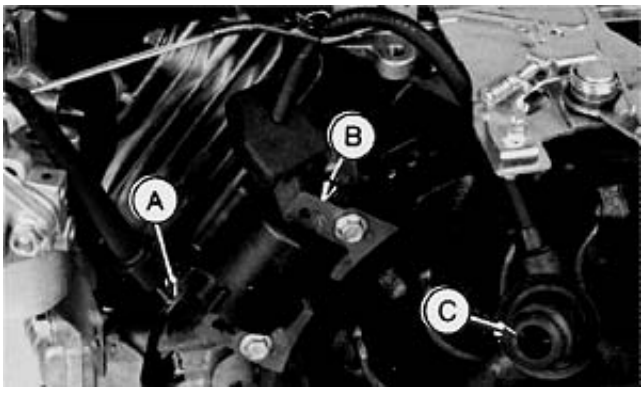
Ohmmeter

1. Remove engine shroud.

2. Remove spark plug cap from spark plug wire.

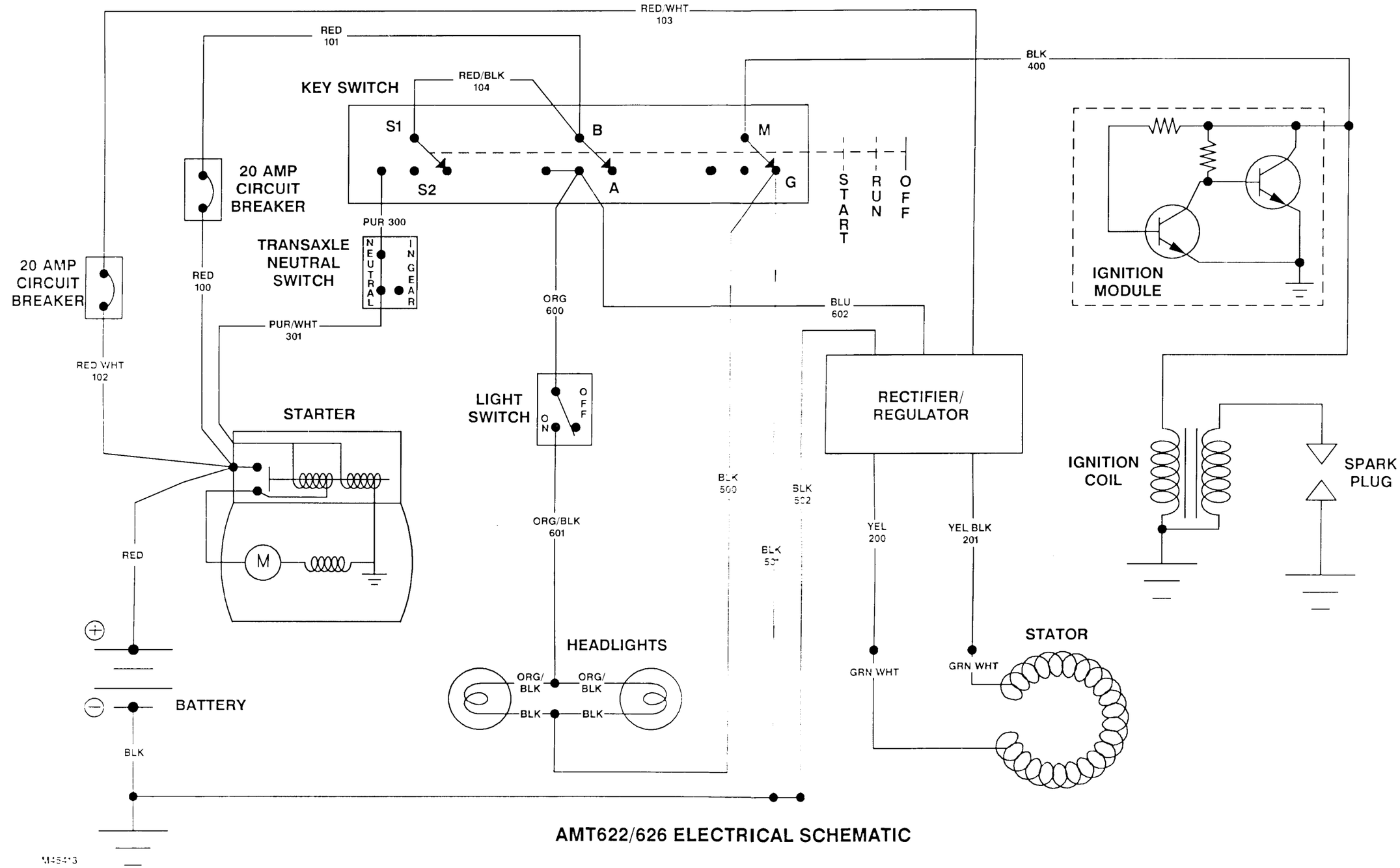
3. Measure resistance between primary lead (A) and core (B), and between spark plug lead (C) and core (B).

4. Replace coil that does not meet specifications.

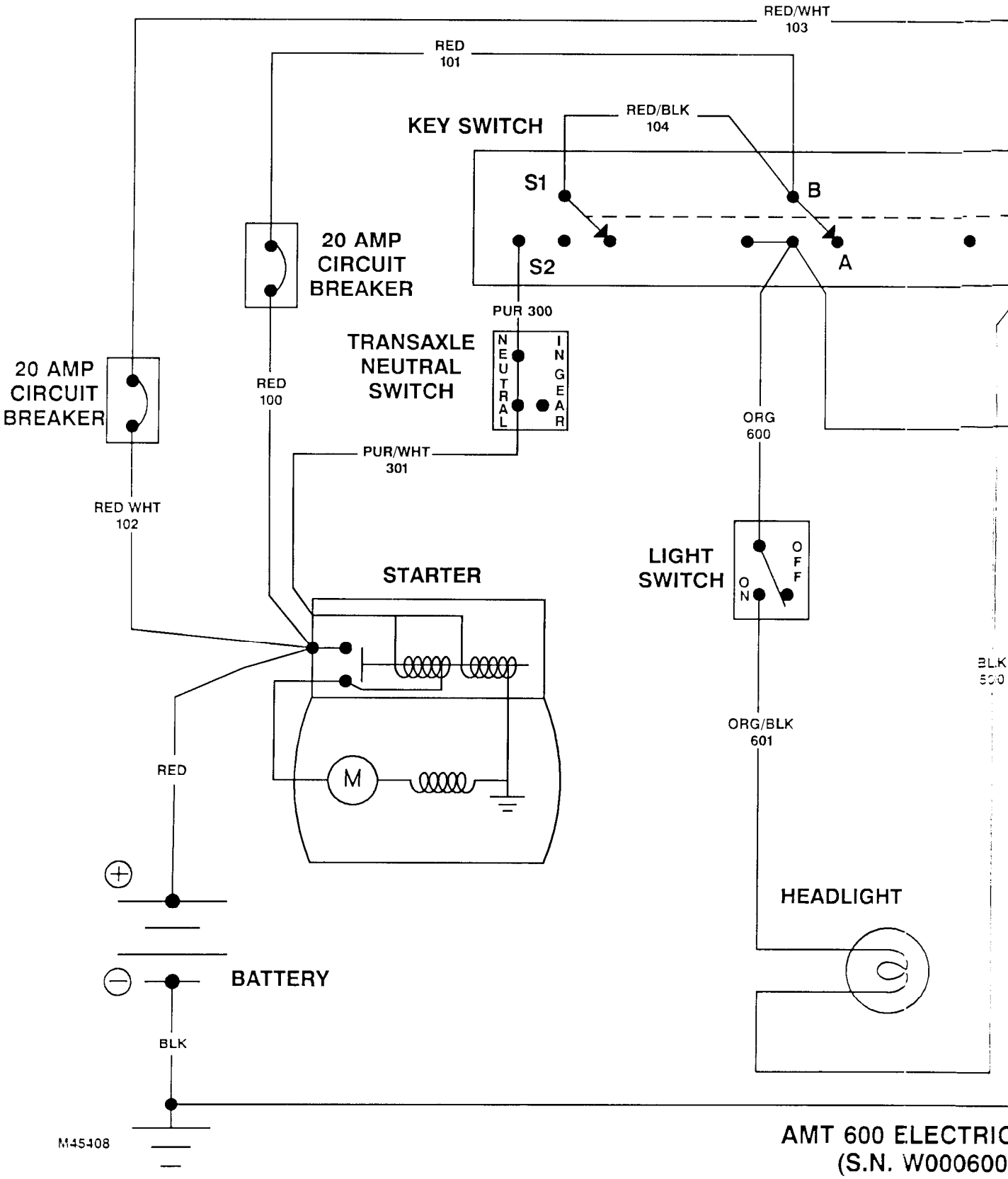


Slide M45483

MX,24015FD,A5 -19-29AUG91

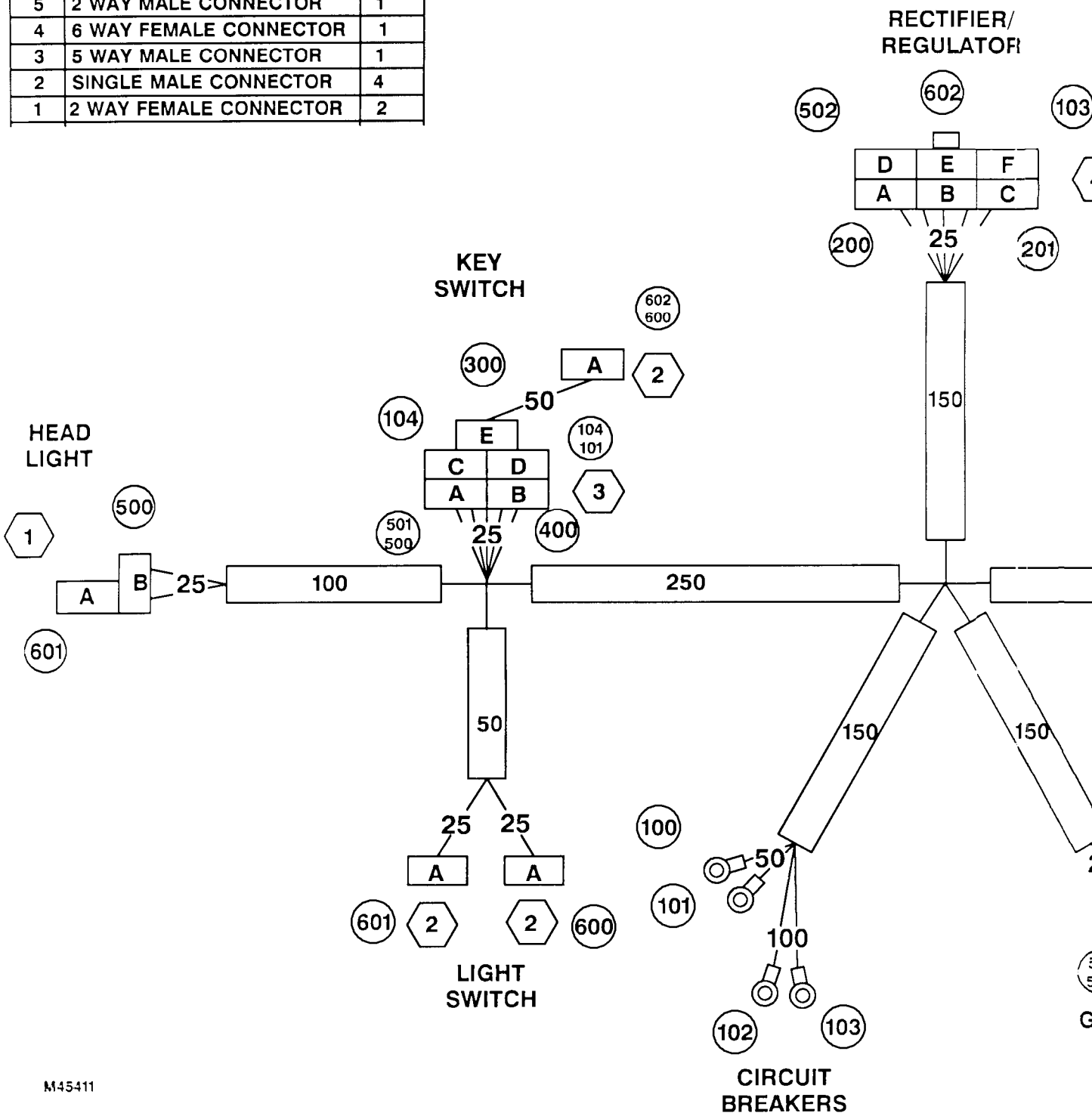


AMT622/626 ELECTRICAL SCHEMATIC



AMT 600 ELECTRIC
(S.N. W000600

ITEM	DESCRIPTION	QUAN
6	SINGLE FEMALE CONNECTOR	1
5	2 WAY MALE CONNECTOR	1
4	6 WAY FEMALE CONNECTOR	1
3	5 WAY MALE CONNECTOR	1
2	SINGLE MALE CONNECTOR	4
1	2 WAY FEMALE CONNECTOR	2



AMT 600 WIRING H

AMT622/626 POWER TRAIN COMPONENTS

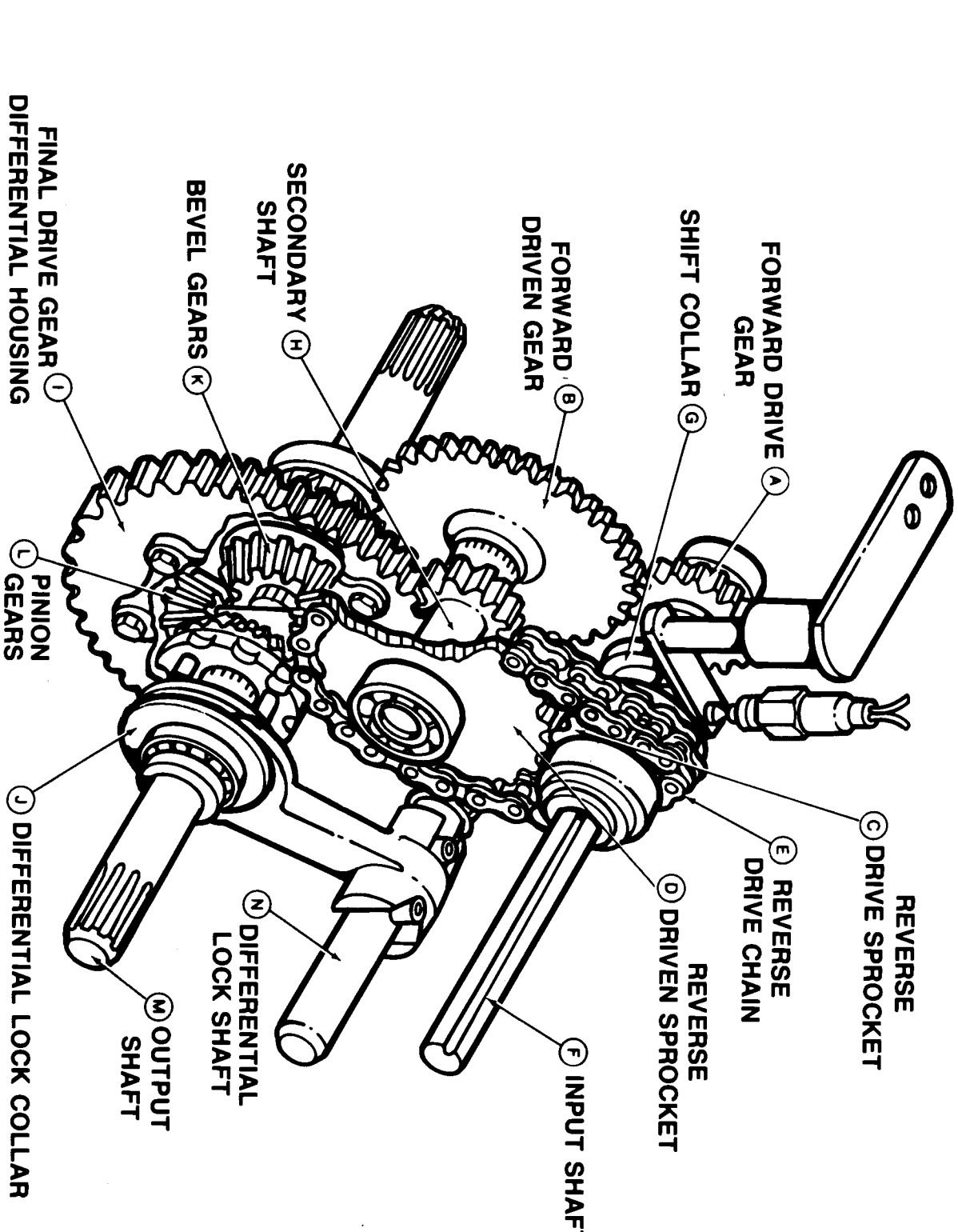
A—Engine
B—Differential Lock Linkage
C—Drive Clutch
D—Transaxle Output Shaft
E—Front Drive Axle
F—Front Drive Sprocket
G—Driven Clutch
H—Chain Tensioner Block
I—Rear Drive Sprocket
J—Rear Drive Axle
K—Axle Bearings
L—Drive Chain
M—Transaxle
N—Drive Belt
O—Transaxle Linkage

Slide M45450

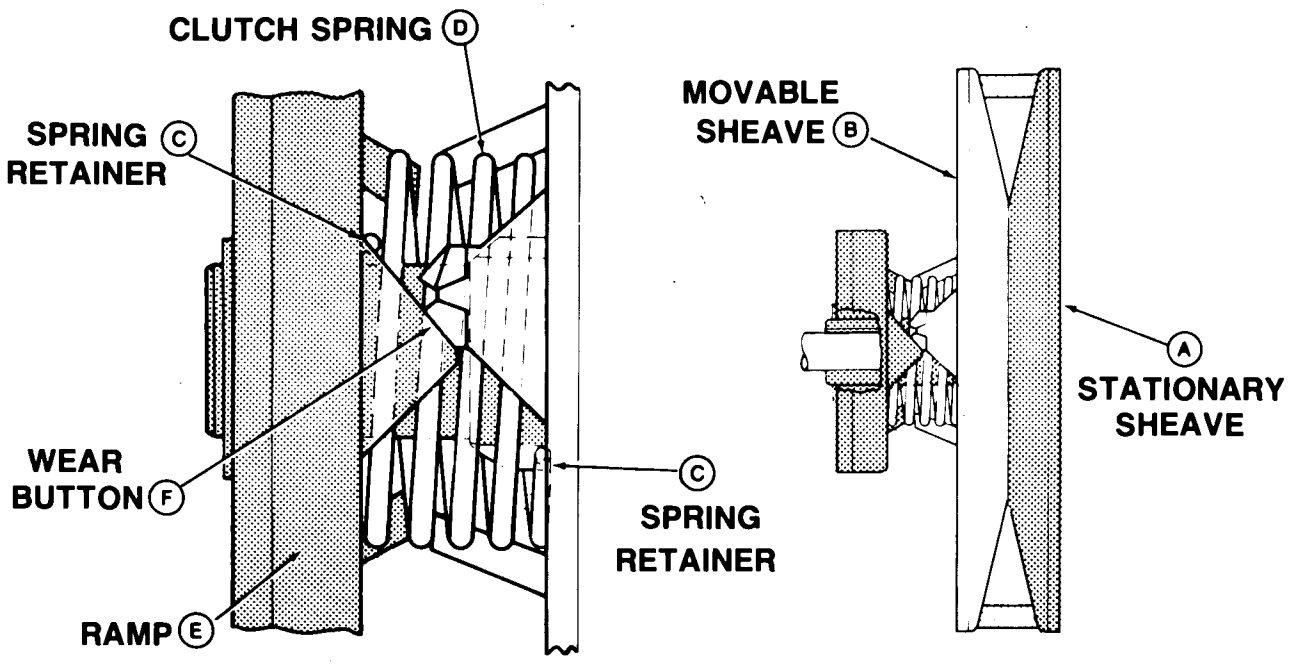
250
05
2

NOTE: Chain tensioner block (H) on later production models consist of an idler in place of a wear pad. Wear pads can be replaced with the idler assembly.

MX,25005FD,A2A -19-29AUG91



MX,25005FD,A7 -19-29AUG91



M45436

DRIVEN CLUTCH-RAMP

A—Stationary Sheave
B—Movable Sheave
C—Spring Retainer
D—Clutch Spring
E—Ramp
F—Wear Button

Slide M45436

There are two components that control belt tension and shift pattern. These are the clutch spring (D) and the ramp (E).

One end of the clutch spring is attached to the ramp which is keyed to the stationary sheave (A) and the other end of the spring is attached to the movable sheave (B) half. The spring is causing a resistance when the driven clutch is opening and is assisting when the clutch is closing.

The movable sheave rides along the ramp as it opens and closes. Attached to the movable sheave are wear buttons (F) that allow these two components to move smoothly. The ramp is attached to the stationary sheave. It assists in controlling the shift pattern depending on load.

MX,25010FD,A7 -19-29AUG91

JERKY—AGGRESSIVE ENGAGEMENT

Test conditions unless otherwise specified:
—Engine running
—Transaxle in forward
—Accelerate from idle to engagement

TEST/CHECK POINT	NORMAL	IF NOT NORMAL
1. Drive belt	—Tensioned properly 1-1/4“—1-1/2” deflection	Adjust drive belt tension
	—Within wear limits	Replace belt
2. Drive clutch	—Engages belt smoothly at approximately 1500 rpm and upshifts smoothly	Inspect clutch components —Rollers/arms —Springs —Pins/bushings —Spider —Ramp plate

MX,25015FD,A10 -19-09MAY90

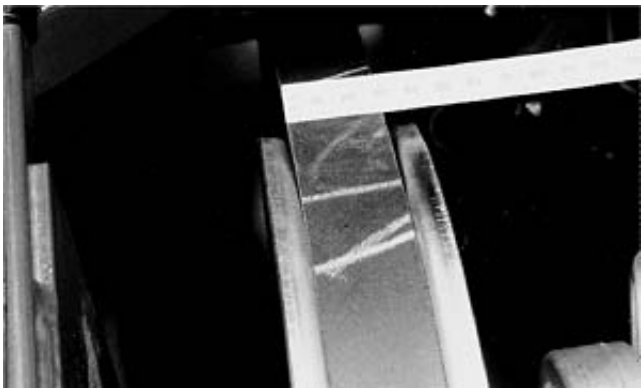
DRIVE BELT INSPECTION

1. Measure the drive belt across the top width.

2. Check the belt for cracking, signs of wear or fatigue.

3. Drive belt minimum width ...27 mm (1-1/16 in.).

Slide M45452



MX,25015FD,A20 -19-29AUG91

BELT TENSION CHECK

1. Place a straight edge along the top of the belt.

2. Tension the top strand of the belt with 45 N (10 lb) of force using a belt tension gauge.

3. Belt should not deflect more than 38—42 mm (1.5—1.75 in.).

Slide M45453

MX,25015FD,A21A-19-29AUG91

BRAKE COMPONENTS

A—Calipers
B—Disks
C—Cables
D—Lever Assembly
E—Drive Chains

Slide M48692

MX,26005FD,3 -19-29AUG91

STEERING COMPONENTS

A—Steering Wheel
B—Tie Rod
C—Pivot Bearings
D—Fork
E—Shock Absorbers
F—Wheel Bearings
G—Swing Arm
H—Swing Arm Pivot
I—Steering Gears

Slide M48776

MX,26505FD,2 -19-29AUG91

BRAKE OPERATION

A—Cables
B—Adjusters
C—Equalizer
D—Foot Pedal
E—Park Lock
F—Stator
G—Balls
H—Rotor
I—Self-adjuster Actuator
J—Self-adjuster Screw
K—Disk
L—Pads

Slide M48773

The brakes are a mechanical, disk and floating caliper, self-adjusting type. The foot pedal is connected to the two brake caliper assemblies with separate cables. As the pedal (D) pulls the cables (A), a rotor (H) in each caliper is turned. The turning rotor forces three balls (G) up ramps on the stator (F) which presses against one brake pad (L). That pad contacts the disk (K) and the caliper assembly moves causing the second pad to contact the disk.

The rotor also turns the self-adjuster actuator (I) which moves the self-adjuster screw (J) out. As the brake pads wear, the actuator rotates far enough to catch on a ratchet that prevents it from turning back when the brakes are released. This then keeps the brake pads properly adjusted.

To adjust cable freeplay there are adjusters (B) at the lever end of both cables. And to allow for variations in cables and calipers, and to keep equal pressures on the brakes, there is an equalizer (C) that connects the lever to the cables.

The park lock control operates the park lock cam (E). The park lock cam has teeth which engage with a tooth on the brake pedal. When the pedal is pressed and the park lock is engaged, the pedal is locked in the engaged position and the brakes remain engaged.

265
10
2

MX,26510FD,2 -19-29AUG91

HYDRAULIC LIFT SYSTEM—RAISE OPERATION

A—Suction Screen
B—Inlet Check
C—Gear Pump
D—Motor
E—Shuttle Valve
F—Lift Check
G—Raise Relief Valve
H—Cylinder
I—Inlet Check
J—Reservoir
K—High Pressure Oil
L—Trapped Oil
M—Pressure Free Oil

Slide MXC45486

When the hydraulic lift switch is in the raise position and motor (D) is running, the gear pump (C) draws oil from reservoir (J) through suction screen (A). The inlet check (B) opens allowing oil to flow to the inlet side of the gear pump. The gear pump produces high pressure oil on the outlet side of the pump. This high pressure oil closes inlet check (I) preventing oil flow back to the reservoir. High pressure oil is forced to the raise side of the shuttle valve (E). High pressure oil acting against the shuttle valve, moves the shuttle valve to the right, which closes off the return passage. As oil pressure increases and overcomes the lift check (F) spring pressure, the lift check opens. This allows high pressure oil to flow to the lift cylinder (H) to extend the cylinder. The raise relief valve (G) prevents raise pressure from exceeding 13790 kPa (2000 psi).

MX,27010FD,4 -19-29AUG91

270
10
4

LIFT CYLINDER WILL NOT RAISE

TEST CONDITIONS UNLESS SPECIFIED OTHERWISE
-Park brake engaged
-Transaxle in neutral
-Key switch in on position

TEST/CHECK POINTS	NORMAL	IF NOT NORMAL
1. Cargo box load and pivot	Load not exceeding 225 kg (500 lb)	Remove some of load
	Cargo box must pivot freely	Repair or replace pivot rod
2. Reservoir oil level	Oil level between add and full marks, oil not foamy or milky	Replace or add oil
3. Suction screen	Clean and not damaged	Clean or replace
4. Lift cylinder pivot, rod, and vent hole	Lift cylinder moves freely, rod not bent or damaged	Replace lift cylinder
	Oil not visible at vent	
5. Hydraulic pump cylinder port	Raise relief valve pressure about 13790 kPa (2000 psi)	Check raise relief valve (A) spring, ball and seat for debris, damage or leakage. Adjust or replace raise relief valve and check relief pressure again. If pressure is still low, continue testing.
6. Inlet check	Ball and seat free from debris and not damaged	Replace pump
7. Gear pump	Gear pump not worn or damaged	Replace pump
8. Shuttle valve	Shuttle valve must move freely in bore and not damaged	Replace valve and adapter
	Shuttle valve O-ring free from nicks or cuts	Replace O-ring
9. Thermal relief valve	Spring not broken or cracked	Replace adapter
	Ball and seat free from debris and not damaged	Replace adapter

Slide M45502

MX,27015FD,2 -19-29AUG91

270
15
2