MAINTENANCE MANUAL

MODEL ACKWX-353
TRUCK CHASSIS
SERIAL NOS.
5067 TO 5517 AND 5549 TO 6018
1940 SERIES SPECIAL EDITION

GENERAL MOTORS TRUCK & COACH
DIVISION OF
YELLOW TRUCK & COACH MANUFACTURING COMPANY
PONTIAC, MICHIGAN

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» INTRODUCTION «

Maintenance information and essential repair instructions, as well as general specifications and test data covering units used in this model will be found on following pages.

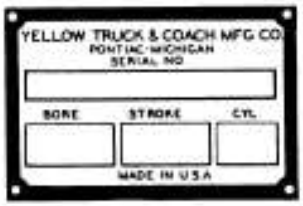
Book is arranged in groups, these groups having the same numbers and names in all current Maintenance Manuals, Parts Books, Service Bulletins and Master Parts Price Lists. Each group is indexed with black tabs which line up with group names and numbers shown on title page.

SERIAL NUMBERS

Data contained in this book applies on vehicle commencing with serial number as follows:

TC#	CHASSIS #	U.S.A. REGISTRATION #
50383	5067 TO 5507	W-412341 TO W-412781
"	5508 TO 5515	W- 60464 TO W- 60471
"	5516 AND 5517	W-412790 AND W-412791
53145	5549 TO 5991	W-412991 TO W-413433
53146	5992 TO 6018	W-413434 TO W-413460

As it is important to always specify serial number of vehicle when ordering parts, we are showing below the various points where these numbers appear. These illustrations are typical of serial number locations—actual serial numbers shown do not necessarily apply on models covered by this publication.

CHASSIS NUMBER	ENGINE NUMBER	CAB NUMBER
		
Stamped on right-hand frame side rail above front spring.	Stamped on left-hand side of cylinder block near generator bracket.	On cab floor at right-hand door lock post.

ALPHABETICAL INDEX

MODEL ACKWX-353 GMC TRUCK

GENERAL DATA

Wheelbase	162"
Engine	
Horsepower - S.A.E.	34.3
Displacement - Cu. In.	256.86
Bore	3-25/32"
Stroke	3-13-16"
Cylinders	6

CAPACITIES

Fuel Tank - R.H. Side Rail (Gals.)	29-1/2
Engine Crankcase - Refill (Qts.)	10
Cooling System (Qts.)	23
Transmission (Pts.)	6-1/2
Transfer Case (Pts.)	6
Front Axle Differential (Pts.)	7
Rear Axle Differential (Pts.) each	7
Oil Bath Air Cleaner (Qts.)	1

LAMP BULBS

Head Lamp (Sealed Beam)

Driving Beam (Upper)	45 Watts
Passing Beam (Lower)	35 Watts

	C.P.	Mazda No.
Fender Lamps	3	63
Tail Lamps	3	63
Stop Lamps	15	87
Instrument Lamps	1-1/2	55
Beam Indicator Lamp	1	51
Fuse		30 Amp.

DRIVERS INSTRUCTIONS

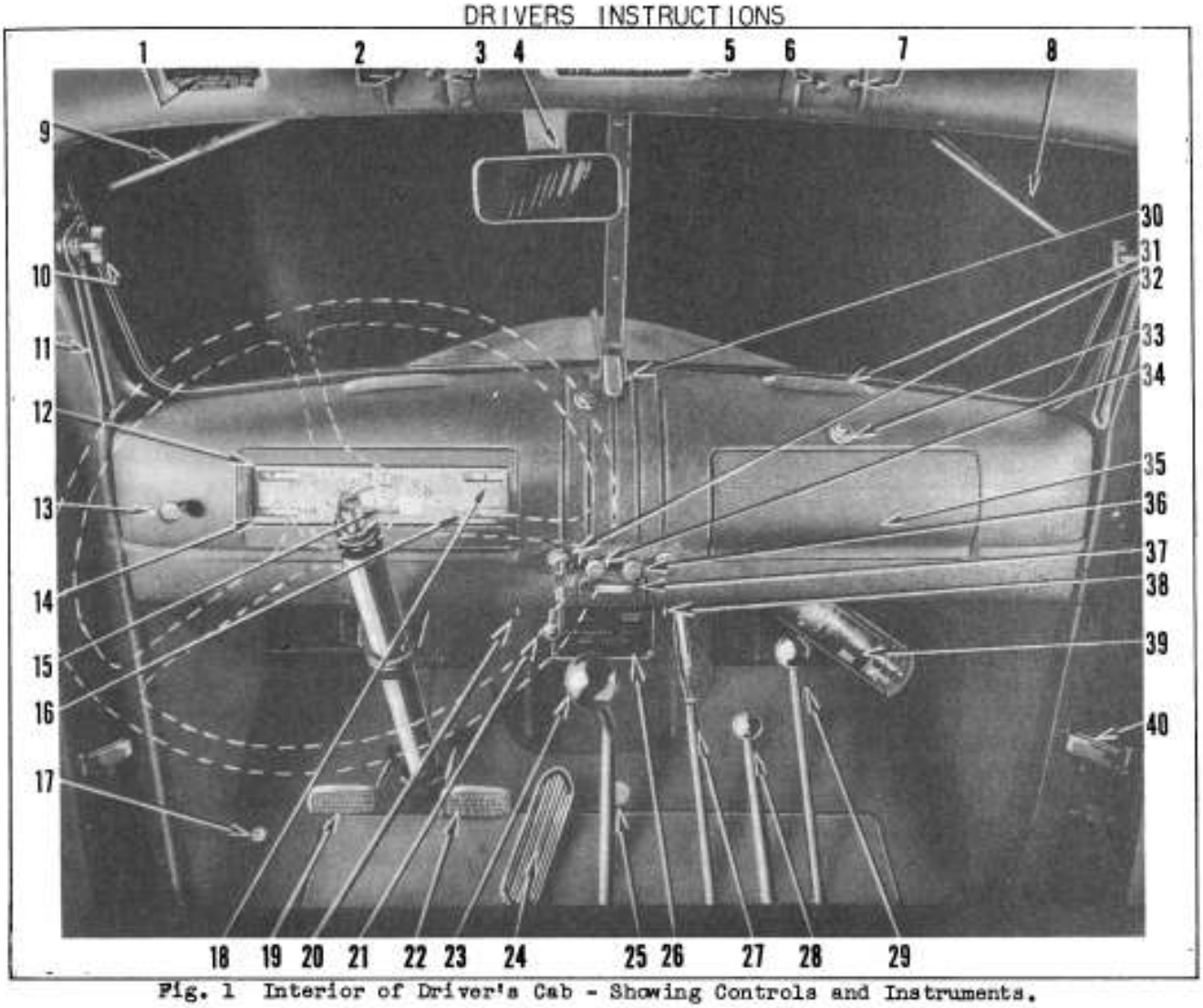


Fig. 1 Interior of Driver's Cab - Showing Controls and Instruments.

1. Shifting Arrangement Plate
2. Windshield Wiper Switch.
3. Windshield Wiper Speed Regulator.
4. Rear View Mirror.
5. Road Speed Caution Plate
6. Windshield Wiper Speed Regulator.
7. Windshield Wiper Switch.
8. Windshield Wiper - R.H.
9. Windshield Wiper - L.H.
10. Windshield Quadrant Adjusting Screw.
11. Windshield Quadrant.
12. Water Temperature Gauge.
13. Light Switch.
14. Fuel Gauge.
15. Speedometer.
16. Oil Gauge.
17. Dimmer Switch.
18. Ammeter.
19. Clutch Pedal.
20. Instrument Panel Light Switch.
21. Cowl Ventilator Control.
22. Brake Pedal.
23. Transmission Shift Lever.
24. Accelerator Pedal.
25. Starter Pedal.
26. Serial Plate.
27. Hand Brake Lever.
28. Transfer Case Lever.
29. Front Axle Declutching Lever.
30. Windshield Lock.
31. Defroster Opening.
32. Ignition Switch.
33. Package Compartment Button.
34. Throttle Button.
35. Package Compartment.
36. Choke Button.
37. Ash Tray.
38. Backout Switch.
39. Fire Extinguisher.
40. Door Check.

DRIVERS INSTRUCTIONS

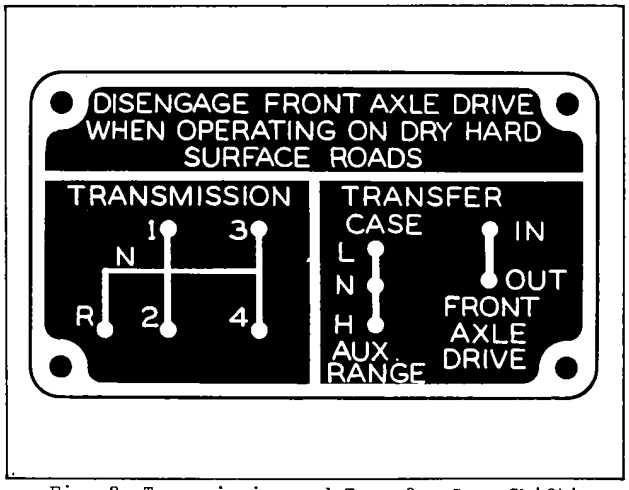


Fig. 2 Transmission and Transfer Case Shifting Arrangement.

Our instructions to Drivers constitute one of the most important purposes of this manual - as it is our contention that good driving embraces more than the basic acts of starting, operating and stopping a motor vehicle. By adhering to good driving practices and thru complete knowledge of the vehicle, a good Driver will obtain full benefit of GMC economy - in low operating and low maintenance costs.

The natural function of a GMC truck is smooth and "rhythmic" without sharp clicks, knocks, or sounds of metal scraping metal. The good Driver soon becomes accustomed to the operation or "feel" of his vehicle and is quick to detect any changes in its normal operation. On the other hand the Driver is not expected to rely entirely upon sound for trouble diagnosis - and, accordingly, instruments are provided which indicate the condition of such vital items as Engine Temperature, Engine Oil Pressure, Electrical Charging Rate, Quantity of Fuel etc., all of which are useful aids to good driving.

In addition to the information contained in this section, we particularly refer all Drivers to "Trouble Shooting" data at end of each division of this book. Careful study of these items will enable the Driver to recognize even gradual changes in the mechanical condition of various units, and will thus encourage the application of corrective service BEFORE costly repairs become necessary.

Whether or not the Driver is thoroly acquanited with properly handling a truck, or is only a beginner - the following instructions should be carefully read and as carefully put into practica.

BEFORE STARTING THE ENGINE (at the beginning of the days run), it is important that the vehicle be ready for operation. The following procedure is listed:

A. See that radiator has sufficient water and check fan belt to see that it is in place and properly adjusted to assure adequate cooling.
B. See that oil level is up to "full" mark on dip stick. Also inspect oil and fuel lines for leaks.
C. Note condition of tires and see that they are properly and evenly inflated.
D. See that there is adequate fuel supply.
E. Test lights and horn.

HOW TO START ENGINE

A. Hand brake lever 27 should be pulled back to set brakes.
B. Transmission shift lever 23 must be in neutral position. See shifting diagram.
C. Pull out hand throttle 34 about 1/2" (20 M.P.H.). This is not necessary if engine is warm.
D. Pull choke button 36 until 1/2 open to obtain proper fuel and air mixture for starting. This may not be necessary if engine is warm. In extremely cold weather choke may be pulled all the way out.
E. Insert ignition switch key 32 and turn to "On" position.
F. Push clutch pedal 19 downward and hold down until after engine starts.
G. Step on starter pedal 25 to start engine. Release pedal as soon as engine starts.
H. Make necessary throttle and choke adjustments to obtain even idling speed and with shifting levers in neutral position, gradually let out clutch pedal.

HOW TO START TRUCK

A. Push clutch pedal 19 downward to disengage clutch.
B. If transfer case shifting lever 28 is in neutral position it should be moved into either "high" or "low" speed (See Fig. 2).
C. Move transmission gear shift lever 23 into "first" speed (See Fig. 2.)
D. Release hand brake lever 27.
E. Step down on accelerator pedal 24 to speed up engine. Release clutch pedal slowly and push accelerator pedal downward as necessary to prevent engine from stalling while truck starts forward as clutch pedal is released.

F. As truck speed increases, release accelerator pedal 24, depress clutch pedal, move transmission lever 23 into neutral and then into next higher speed. Depress accelerator pedal and release clutch as explained above. Repeat this operation until transmission is in high gear.

G. Instructions for shifting transfer case and disengagement of front axle areas follows:

a. It should be remembered that only the "high" range can be employed when front axle is disengaged - and that if it is desired to shift into "low" range, the front axle must first be engaged. After front axle is engaged, transfer case may be operated in either "high" or "low" range. If, after operating with front axle engaged, it is desired to disengage front axle, it is first necessary to shift transfer case into "neutral" position and then move front axle shift lever into disengaged position - further operation would then be in "high" range. Front axle may be engaged or disengaged at any vehicle speed without releasing clutch. Transmission gear shift position does not in any way affect the selection of, or shifting of, high and low range in transfer case.

b. Shift from High to Low Speed should only be attempted when vehicle is operating at low speeds or at a standstill. Front axle must be engaged for this shift. Depress clutch pedal and move transfer case shift lever into neutral. Release clutch pedal and accelerate engine to approximately double that of vehicle speed. Depress clutch pedal again and move shift lever forward (without applying excessive pressure) into low speed position. Then release clutch and accelerate engine. This method of shifting is termed "Double-Clutching" a little practice will enable driver to accomplish shift smoothly and efficiently.

c. Shift From Low to High Speed can be accomplished at any time - regardless of vehicle speed. To do this, the double-clutch method is employed, simply depress clutch pedal and move shift lever into neutral. Release clutch pedal and accelerate engine to synchronize engine speed with vehicle speed. Then depress clutch pedal and move shift lever towards rear into high speed position.

MAXIMUM PERMISSIBLE ROAD SPEEDS IN THE FOLLOWING GEAR POSITIONS

TRANSMISSION IN	TRANSFER CASE IN HIGH RANGE	TRANSFER CASE IN LOW RANGE
DIRECT	45	22
THIRD	26	13
SECOND	13	6
FIRST	6	3
REVERSE	6	3

BASED ON 2900 R.P.M. ENGINE MAXIMUM SPEED 6.6-1 AXLE RATIO & 7.50-20 TIRES

Fig. 3 Permissable Speed Range in Various Transmissions and Transfer Case Ratios for Vehicles With 7.50-20 Tires.

MAXIMUM PERMISSIBLE ROAD SPEEDS IN THE FOLLOWING GEAR POSITIONS

TRANSMISSION IN	TRANSFER CASE IN HIGH RANGE	TRANSFER CASE IN LOW RANGE
DIRECT	45	22
THIRD	26	13
SECOND	13	6
FIRST	6	3
REVERSE	6	3

BASED ON 3000 R.P.M. ENGINE MAXIMUM SPEED 6.6-1 AXLE RATIO & 7.00-20 TIRES

Fig. 4 Permissable Speed Range in Various Transmissions and Transfer Case Ratios for Vehicles With 7.00-20 Tires.

HOW TO SHIFT INTO LOWER TRANSMISSION SPEED GEAR

Transmission should always be shifted to next lower speed before engine begins to labor or before vehicle speed is reduced appreciably. Shifting to lower speed is accomplished by depressing clutch pedal and releasing accelerator pedal at same instant. Move transmission gear shift lever quickly and without excessive pressure into lower speed, accelerate engine to synchronize engine with vehicle speed, and release clutch pedal slowly. In general, it is advisable to use the same transmission speed going down hill as would be required to climb the same hill.

HOW TO REVERSE

Before attempting to shift into reverse, truck must be brought to a complete stop.

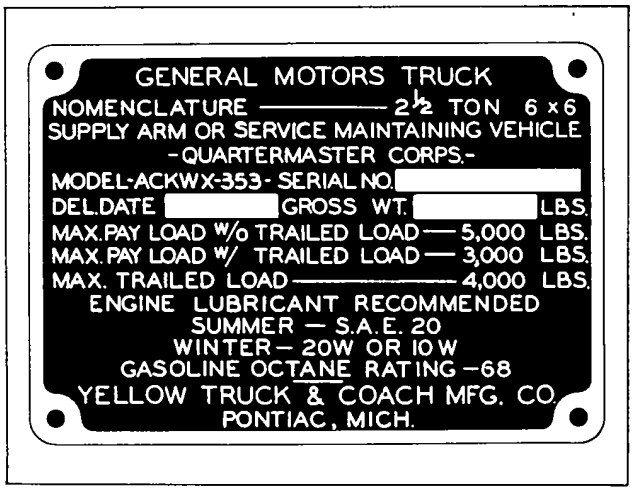


Fig. 5 Serial Number and Operating Data Plate for Vehicles With 7.00-20 Tires.

A. Push clutch pedal 19 downward to disengage clutch.
B. Raise latch on gear shift lever 23 and move as far as possible to left then toward rear. (See shifting diagram in this section).
C. Release clutch pedal and accelerate engine in same manner as previously explained under "How to Start Truck".

HOW TO STOP TRUCK

A. Remove foot from accelerator pedal 24 and apply brakes by pressing down on foot pedal (22).
B. When speed of truck has been reduced to idling speed of engine, clutch should be disengaged by depressing clutch pedal, and transmission shift lever moved into neutral position. Release clutch pedal and apply hand brake when truck has come to complete stop.

DESCRIPTIONS OF INSTRUMENTS

SHIFTING ARRANGEMENT PLATE (1). Method of shifting transmission gears into the various speed ratios is outlined on this plate.

WINDSHIELD WIPER SWITCH (2). This switch may be pulled out to operate L.H. windshield wipers. Speed of windshield wiper action is controlled by switch (3) which must also be turned on.

WINDSHIELD WIPER SPEED REGULATOR (3). After windshield wiper switch is pulled out, speed of wiper action can be regulated by turning switch to right or left as required.

REAR VIEW MIRROR (4). This mirror permits vision directly thru rear window of cab when body paulin does not obscure vision. Outside rear view mirror will provide satisfactory rear vision at all times.

ROAD SPEED CAUTION PLATE (5). This plate is a constant reminder to the driver of the various vehicle speeds permissable in different transmission and transfer case speed ranges (see Fig. 3.

WINDSHIELD WIPER SWITCH (6). This switch may be pulled out to operate R.H. windshield wiper. Speed of windshield wiper is regulated by switch #7 which must also be turned on.

WINDSHIELD WIPER SPEED REGULATOR (7). After windshield wiper switch (6) is pulled out, speed of wiper action can be regulated by turning switch to right or left as required.

WINDSHIELD WIPER (8 and 9). Dual Windshield wipers are each operated independently - separate control switches are provided to turn windshield wiper "on" or "off" and to regulate speed of wiper action.

WINDSHIELD QUADRANT THUMB SCREW (10). Windshield may be opened outward and upward to a horizontal position by loosening these thumb screws. Windshield may also be locked in any desired position by tightening thumb screws against quadrant.

WINDSHIELD QUADRANT (11). Quadrants, one on each side of windshield, act as supports and guides to hold window in any desired open position.

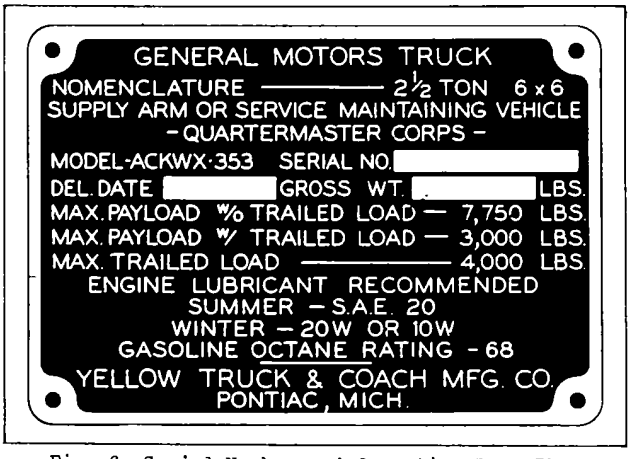


Fig. 6 Serial Number and Operating Data Plate for Vehicles With 7.50-20 Tires.