

SECTION 8-E

MANUAL AND POWER STEERING LINKAGE

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8-26 STEERING LINKAGE SPECIFICATIONS

a. Tightening Specifications

Use a reliable torque wrench to tighten the parts listed to insure proper tightness without straining or distorting parts. These specifications are for clean and lightly lubricated threads only; dry or dirty threads produce increased friction which prevents accurate measurement of tightness.

Part	Location	Thread Size	Torque Lb. Ft.
Bolt & Nut	Tie Rod Clamp	3/8-24	15-25
Bolt & Nut	Idler Arm Support to Front Suspension Cross Member	3/8-24	30-40
Nut	Tie Rod Ball Stud to Steering Arm and Intermediate Rod	1/2-20	30-50
Nut	Pitman and Idler Arm to Intermediate Rod	1/2-20	30-50
Nut	Pitman Arm to Pitman Shaft	7/8-14	100-140

b. Steering Linkage Specifications

Type	Forged-Parallelogram
Make	Saginaw
Toe-in, Caster, Camber, etc.	See Group 7
Turning Circle Diameter (Curb to Curb)	38.1 feet

8-27 DESCRIPTION OF STEERING LINKAGE

The parallelogram type steering linkage is used to connect both front wheels to the steering gear pitman arm. The right and left tie rods are attached to a forged intermediate rod by ball studs. See Figure 8-95. The left end of the intermediate rod is supported by the pitman arm and the right end by an idler arm which pivots on a support attached to the frame. The pitman and idler arms are always paralleled with each other and move through symmetrical arcs.

The steering linkage ball studs are of the permanent lubricated design and do not require periodic lubrication. However, the inner and outer tie rod ends have removable plugs. If a squeak develops in one of these studs, the plug may be removed and a grease fitting (1/4-28) installed and stud lubricated.

The linkages used for manual steering and power steering are the same.

8-28 STEERING LINKAGE SERVICE PROCEDURES

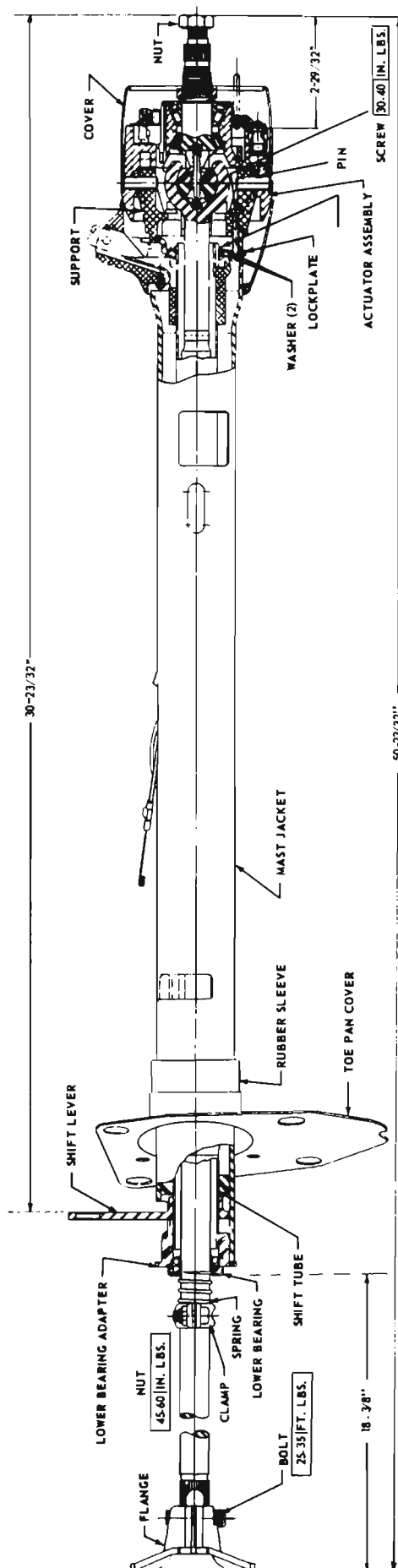
When disconnecting the pitman

arm or the idler arm from the intermediate rod, Remover J-3295 may be used to drive stud portion of ball joint out of arms. Other portions of the linkage may be separated by use of a suitable commercial type puller.

IMPORTANT: When installing a ball stud nut, torque nut to 45 lb. ft., then tighten to nearest slot for insertion of the cotter pin. Do not back nut off to insert cotter pin.

The linkage idler arm does not require any adjustment.

See Group 7 for adjustment of tie rods to obtain proper toe-in of front wheels.



NOTE:

1. WITH ASSEMBLY IN NON-TILTED POSITION AND LOWER SHAFT HELD RIGIDLY, MAXIMUM ROTATIONAL LASH MUST NOT EXCEED 10 INCHES. TORQUE TO MOVE GEARSHIFT LEVER FROM STOP TO STOP NOT TO EXCEED 18 INCH. LBS.
2. TORQUE TO MOVE GEARSHIFT LEVER FROM STOP TO STOP NOT TO EXCEED 18 INCH. LBS.
3. STEERING SHAFT TORQUE NOT TO EXCEED 40 INCH-OZ. IN ALL ANGLE POSITIONS.

Figure 8-94—Tilt Wheel Mast Jacket and Transmission Control Shaft - Automatic Transmission

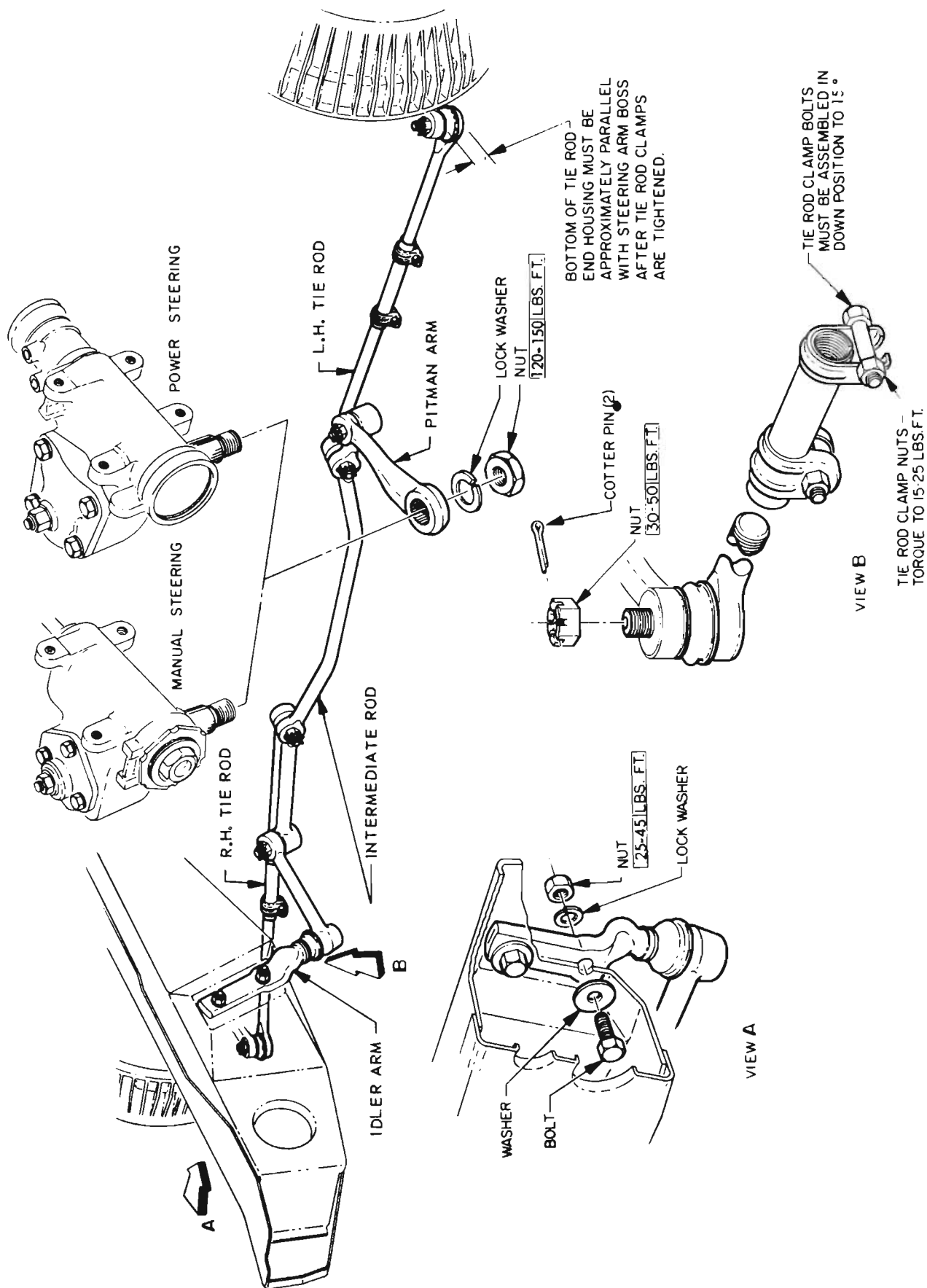
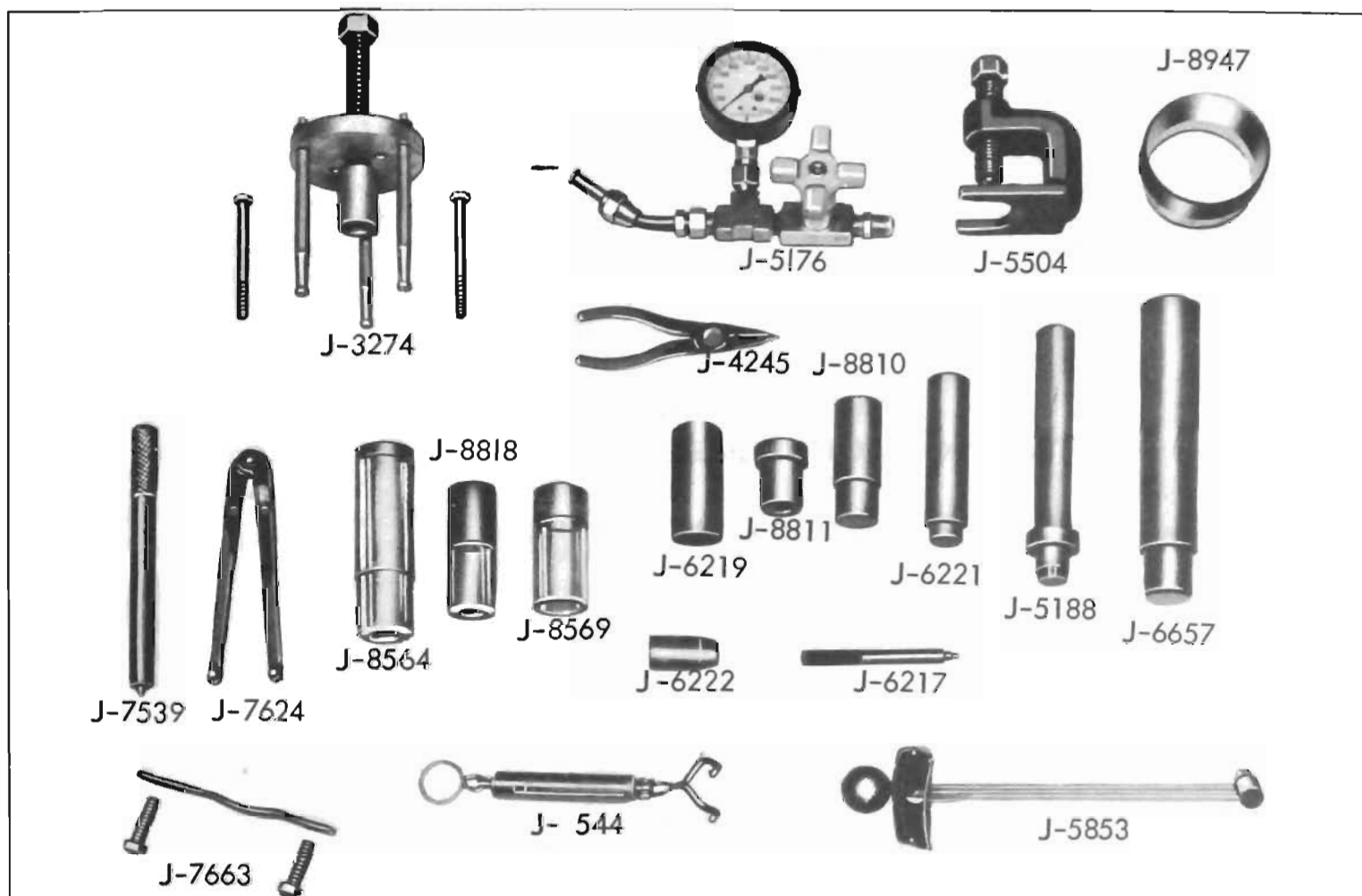


Figure 8-95—Steering Linkage Installation



STEERING TOOLS

- J- 544 Steering Gear Tension Scale 0-4 lbs.
- J-3274 Steering Wheel Puller
- J-4245 True Pliers
- J-5176 Testing Gauge
- J-5188 Valve Cover Seal Installer
- J-5504 Pitman Arm Puller
- J-5854 0-100 in. lb. Torque Wrench
- J-6217 Valve Connector Seal Installer
- J-6219 Steering Gear Pitman Shaft Oil Seal Installer
- J-6221 End Cover Bearing Remover and Installer (Adjuster Plug Needle Bearing)
- J-6222 End Cover Seal Protector (Stub Shaft Protector)
- J 6657 Pitman Shaft Needle Bearing Remover and Installer
- J-7539 Power Steering Gear Ball Retaining Tool
- J-7624 Power Steering Gear Adjustable Spanner Wrench
- J-7663 Power Steering Pump End Plate Installer
- J-8564 Worm Shaft Oil Seal Installer
- J-8569 Pitman Shaft Oil Seal Installer
- J-8810 Pitman Shaft Bushing Remover and Replacer
- J-8811 Pitman Shaft Seal and Upper Bearing Cup Installer
- J-8818 Power Steering Pump Seal Installer
- J-8947 Teflon Ring Compressor

Figure 8-96—Manual and Power Steering Special Tools