



Heavy 7 Speed PS110-7A/7B & PS145-7A

Parts Catalog

Bulletin No. T210-PS145-7

June 1993



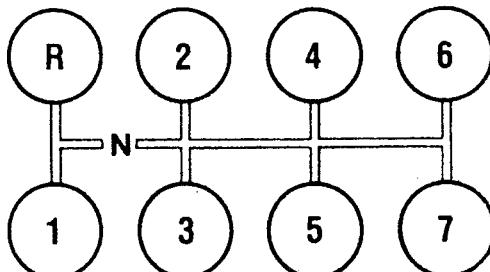
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RATIO TABLE

SPEEDS	MODELS		
	PS110-7A	PS145-7A	PS110-7B
1st	10.13	10.13	.12.266
2nd	5.99	5.99	7.000
3rd	3.56	3.56	4.133
4th	2.57	2.57	2.541
5th	1.84	1.84	1.840
6th	1.33	1.33	1.335
7th	1.00	1.00	1.000
Rev.	10.13	10.13	12.266

SHIFT PATTERN



IDENTIFICATION

The Name Plate (NP-96) affixed to the RIGHT side of the Transmission is stamped with information:

In requesting more information on these transmissions, please furnish this information.

Abbreviations used in this parts list include:

N.S. — Not Shown

N.S.S. — Not Sold Separately

N.R. — Not Required

A.R. — As Required

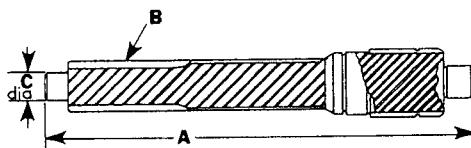
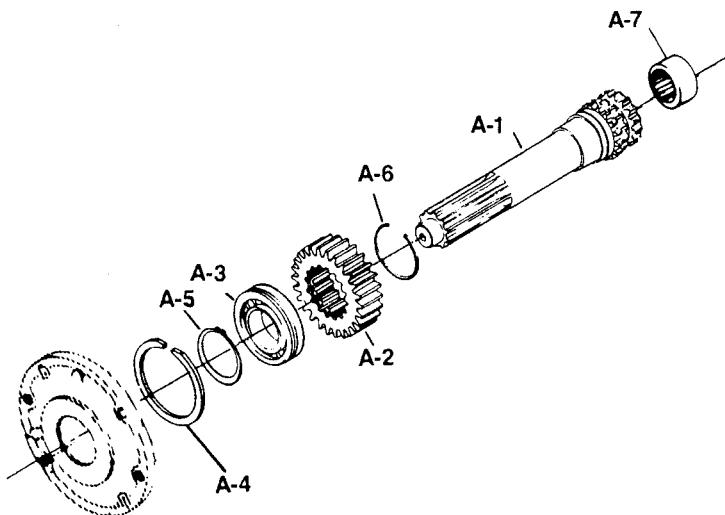
SERIAL

B/M No. MODEL

Models PS110-7A/7B & PS145-7A GEARS and RELATED PARTS

T210-PS145-7

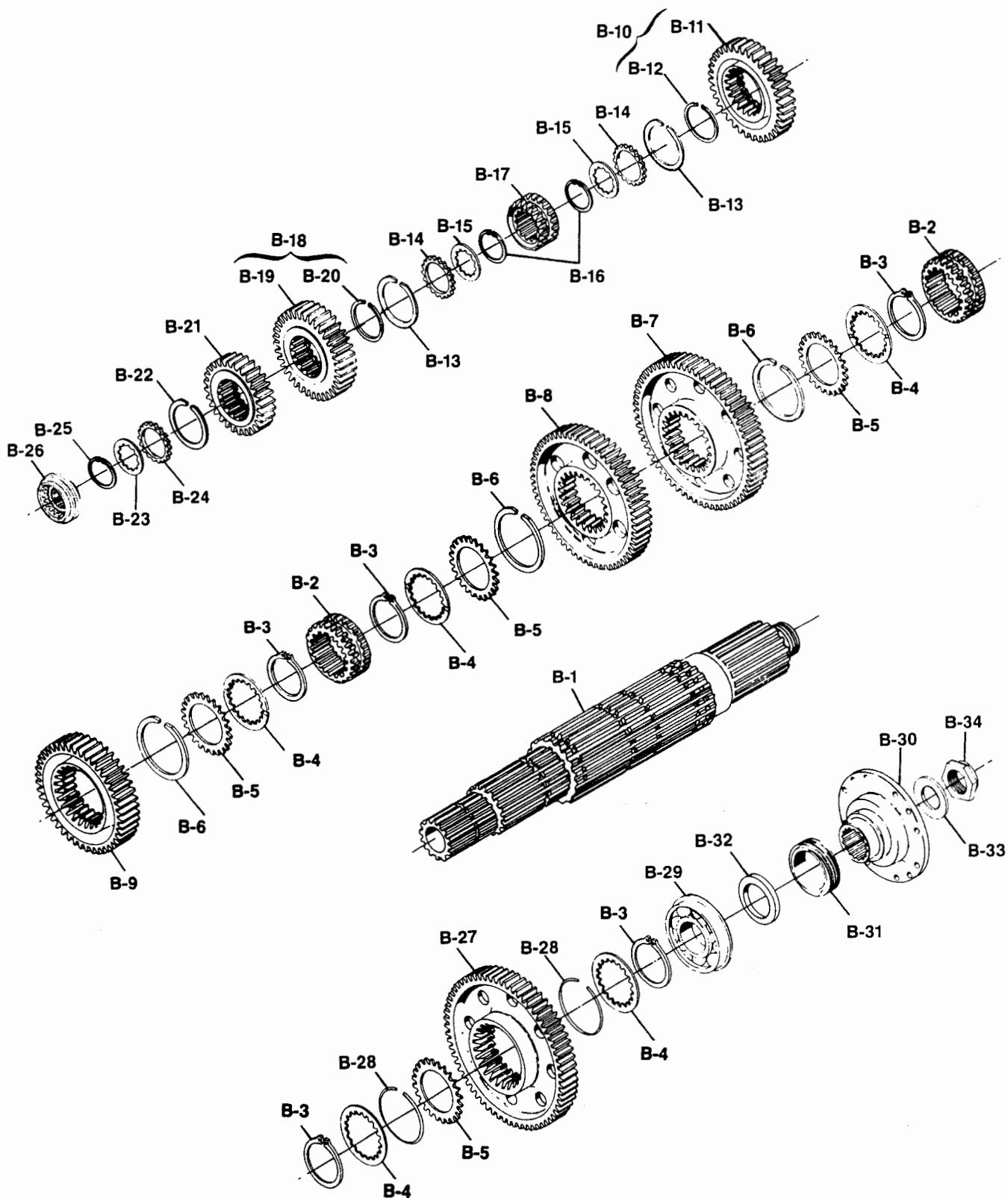
Ref. No.	Part No.	Part Description	Qty
A-1	97-35-102-1X *	Input Shaft - 2.000"-10 #306 pilot	1
	97-35-105-1X *	Input Shaft - 1.750"-10 #306 pilot	1
	97-35-106-1X *	Input Shaft - 1.750"-10 #205 pilot	1
A-2	97-36-1-1X *	Gear - Mainshaft Drive (24T) (For PS110/145-7A)	1
	97-36-3-1X *	Gear - Mainshaft Drive (24T) (For PS110-7B)	1
A-3	550992	Bearing - Drive Gear/Input Front	1
A-4	97-381-41	Snap Ring - Input Shaft Bearing Cap Retaining	1
A-5	97-381-42	Snap Ring - Input Shaft Front Bearing Retaining	1
A-6	97-381-44	Snap Ring - Input Shaft Drive Gear	1
A-7	550953	Bearing - Drive Gear/Input Shaft Pocket Roller	1



DRIVE GEAR TABLE

A LENGTH	B SPLINE DIA. TEETH	C PILOT SIZE	SAE NO.	INPUT SHAFT PART NO.	SERVICE WITH
15.020"	2.000"-10	1.180"	306	97-35-102	97-35-102-1X*
15.020"	1.750"-10	1.180"	306	97-35-105	97-35-105-1X*
15.020"	1.750"-10	.983"	205	97-35-106	97-35-106-1X*

* Includes (1) each Snaps Rings 97-381-44 and 97-381-42

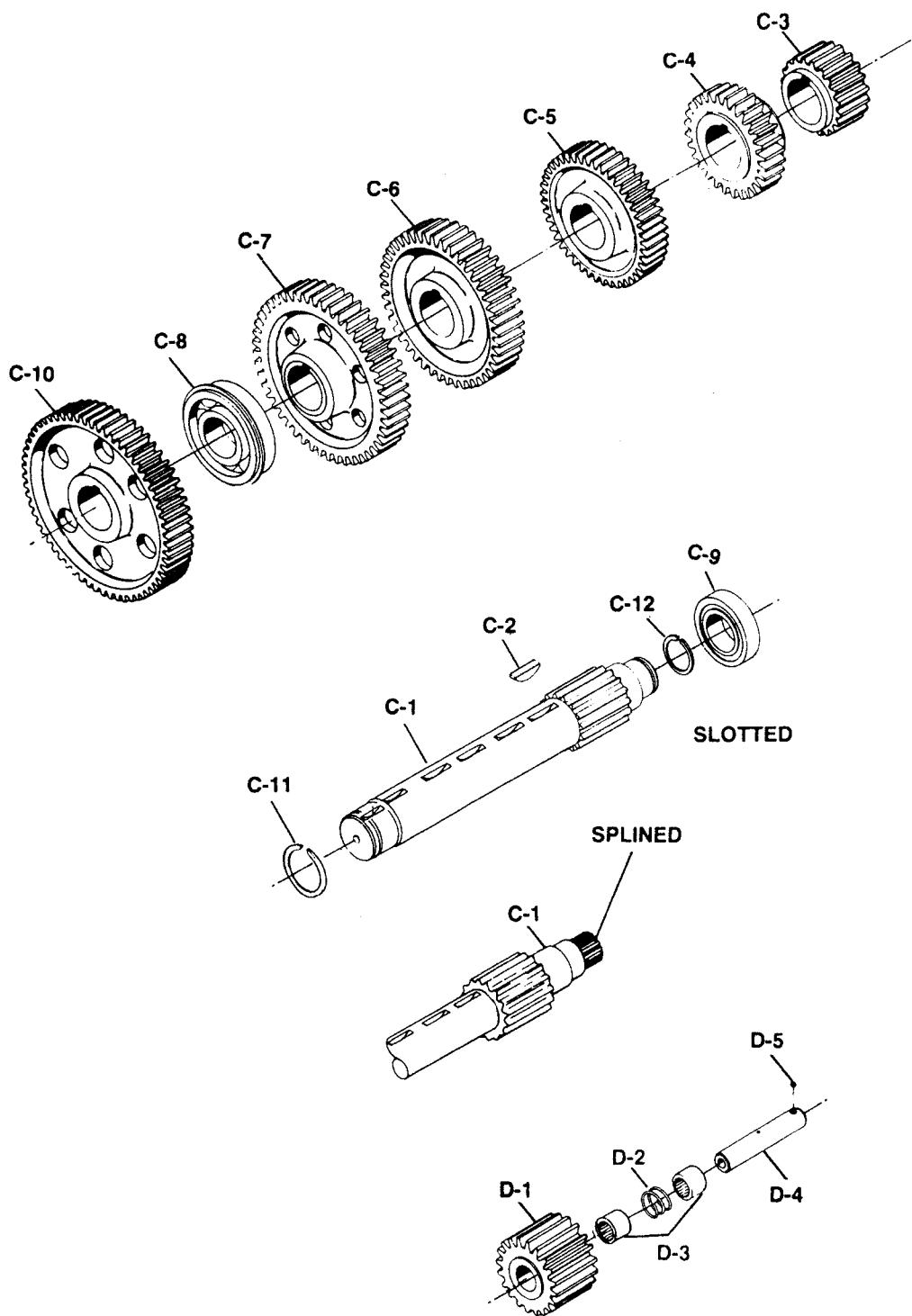




Models PS110-7A/7B & PS145-7A GEARS and RELATED PARTS

T210-PS145-7

Ref. No.	Part No.	Part Description	Qty
B-1	97-362-67	Mainshaft Group	
B-2	97-465-59	Mainshaft	1
B-3	98-381-1	Clutch Collar - 1st, Reverse, 2nd and 3rd Mainshaft (48T)	2
B-4	330959	Snap Ring - External - Large	5
B-5	330810	Thrust Washer - Internal - Large (48T)	5
B-6	98-381-2	Thrust Washer - External - Large (24T)	4
		Snap Ring - Internal - Large	3
B-7	97-8-113	Gear - 1st (64T)	1
B-8	97-8-134	Gear - 2nd (58T) (For PS110-7A, PS145-7A)	1
	97-8-209	Gear - 2nd (56T) (For PS110-7B)	1
B-9	97-8-136	Gear - 3rd (48T) (For PS110-7A, PS145-7A)	1
	97-8-211	Gear - 3rd (46T) (For PS110-7B)	1
B-10	97-8-235-1X	Gear - 4th (40T) (For PS110-7A, PS145-7A)	1
	97-8-238-1X	Gear - 4th (38T) (For PS110-7B)	1
B-11	N.S.S.	Gear - 4th	1
B-12	97-381-43	Snap Ring - 4th Gear Internal Stop	1
B-13	97-381-1	Snap Ring - Internal - Small	2
B-14	330814	Thrust Washer - External - Small (20T)	2
B-15	330960	Thrust Washer - Internal - Small (36T)	2
B-16	97-381-45	Snap Ring - External - Small	2
B-17	97-465-56	Clutch Collar - 4th and 5th Mainshaft (20T)	1
B-18	97-8-234-1X	Gear - 5th (34T) (For PS110-7A, PS145-7A)	1
	97-8-237-1X	Gear - 5th (32T) (For PS110-7B)	1
B-19	N.S.S.	Gear - 5th	1
B-20	97-381-43	Snap Ring - 5th Gear Internal Stop	1
B-21	97-8-232	Gear - 6th (24T) (For PS110-7A, PS145-7A)	1
	97-8-236	Gear - 6th (26T) (For PS110-7B)	1
B-22	97-381-2	Snap Ring - Internal	1
B-23	330961	Thrust Washer - Internal (22T)	1
B-24	330806	Thrust Washer - External (17T)	1
B-25	97-381-46	Snap Ring - External	1
B-26	97-465-57	Clutch Collar - 6th and 7th Mainshaft	1
B-27	97-8-182	Gear - Reverse (64T)	1
B-28	97-381-32	Snap Ring - Internal - Large	2
B-29	550925	Bearing - Rear	1
B-30	See Tab Bills	Flange or End Yoke - U-Joint (See chart on page 21)	1
B-31	See Tab Bills	Speedometer Drive Gear/Electronic Signal Gear	1
or	97-37-34	Spacer (Used in place of Speedometer Gear)	1
B-32	97-37-33	Spacer - Bearing	1
B-33	330734	Flat Washer	1
B-34	545065	Nut - Mainshaft - 1 3/4"-16 Self-locking	1

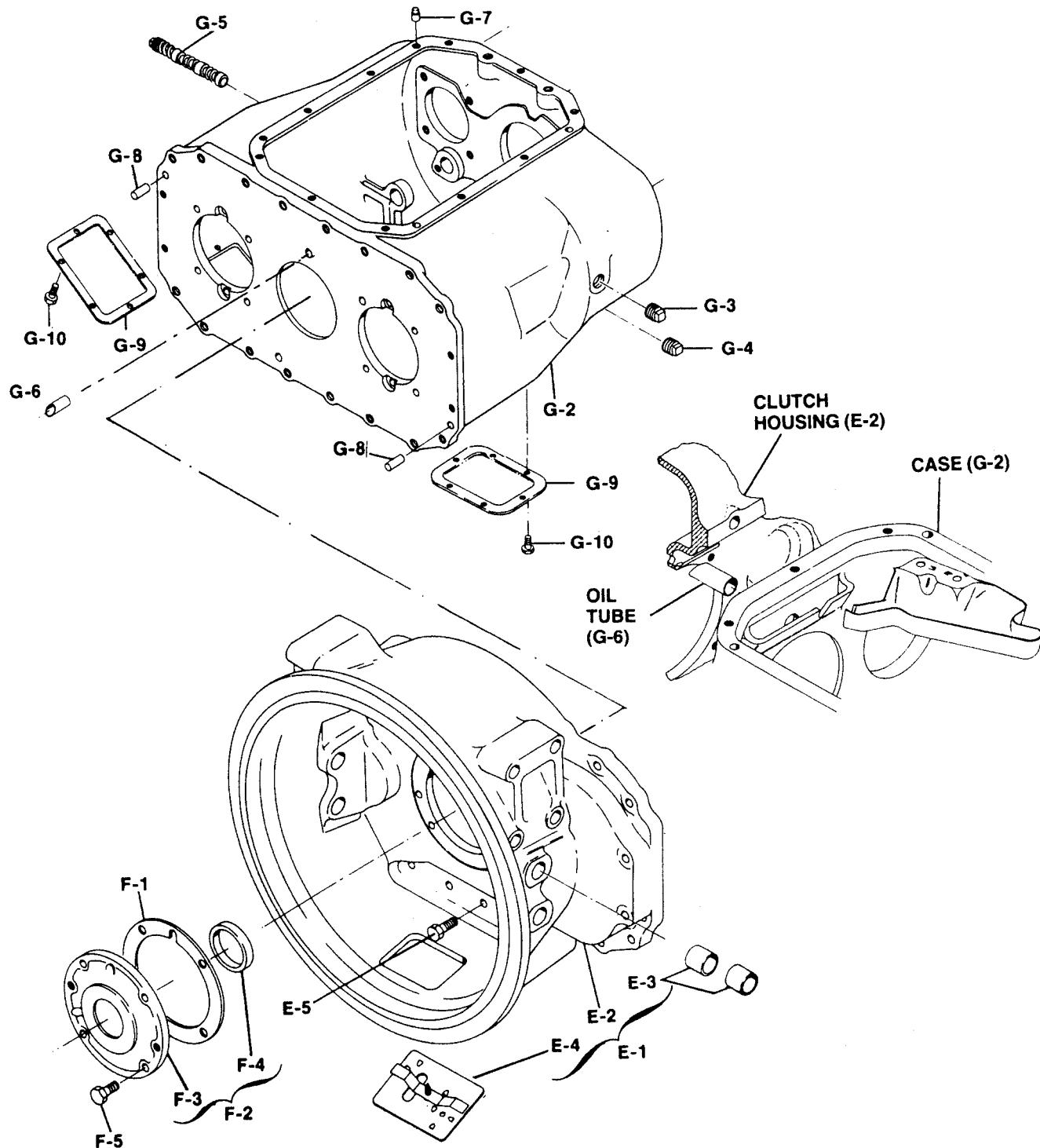




Models PS110-7A/7B & PS145-7A
GEARS and RELATED PARTS

T210-PS145-7

Ref. No.	Part No.	Part Description	Qty
C-1	97-30-74 97-30-75	Countershaft Group (15T) - Splined for P.T.O. - (Standard location - Right Side) (15T) - Slotted for Pump - (Standard location - Left Side)	1 1
C-2	500010-8	Woodruff Key #29	12
C-3	97-196-92 97-196-154	2nd Gear (23T) (For PS110-7A, PS145-7A) 2nd Gear (23T) (For PS110-7B)	2 2
C-4	97-196-19 97-196-32	3rd Gear (32T) (For PS110-7A, PS145-7A) 3rd Gear (32T) (For PS110-7B)	2 2
C-5	97-196-95 97-196-156	4th Gear (37T) (For PS110-7A, PS145-7A) 4ht Gear (43T) (For PS110-7B)	2 2
C-6	97-196-109 97-196-158	5th Gear (44T) (For PS110-7A, PS145-7A) 5th Gear (50T) (For PS110-7B)	2 2
C-7	97-196-110 97-196-173	6th Gear (43T) (For PS110-7A, PS145-7A) 6th Gear (56T) (For PS110-7B)	2 2
C-8	550031	Bearing - Front	2
C-9	550959	Bearing - Rear	2
C-10	97-1-50 97-1-56	Drive Gear (57T) (For PS110-7A, PS145-7A) Drive Gear (69T) (For PS110-7B)	2 2
C-11	97-381-30	Snap Ring - Front Bearing Retainer	2
C-12	54-381-1	Snap Ring - Rear Bearing Retainer	2
Reverse Idler Group			
D-1	97-5-1	Gear - Reverse Idler (21T)	2
D-2	97-37-1	Spacer - Bearing	2
D-3	550886	Bearing	4
D-4	97-60-1	Shaft - Idler Gear	2
D-5	500566-8	Lockball - 9/32"	2

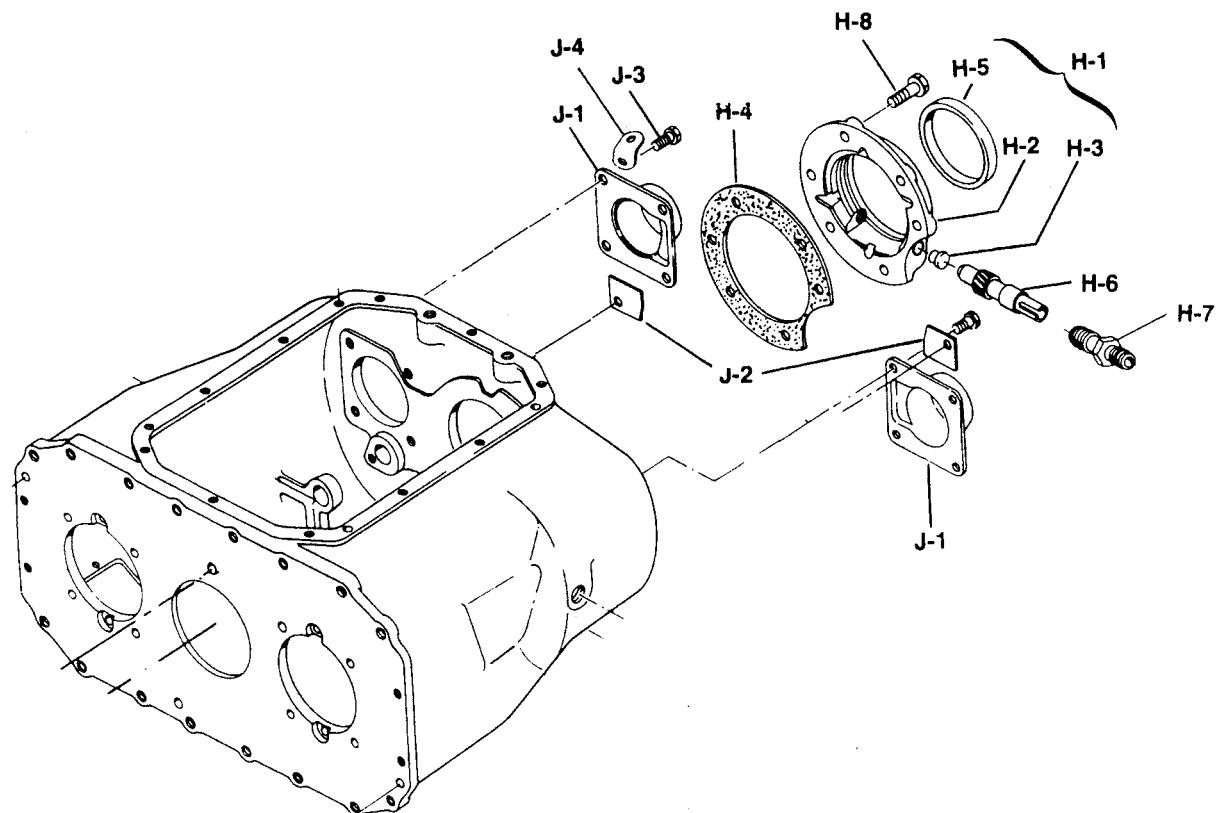




Models PS110-7A/7B & PS145-7A
CASE, BEARING CAP and RELATED PARTS

T210-PS145-7

Ref. No.	Part No.	Part Description	Qty
E-1	See Tab Bills	Clutch Housing Group	
E-2	N.S.S.	Clutch Housing Assembly - (See Chart on Page 17)	1
E-3	97-24-8	Clutch Housing	1
E-4	97-96-18-1X	Bushing - Clutch Release Shaft	8
E-5	545008-4	Hand Hole Cover Assembly	1
and	545103	Bolt - 5/8"-11 x 2" Hex Head Self-locking	16
N.S.	330829	Bolt - 3/8"-16 x 3" Hex Head Self-locking	4
N.S.	14-W	Flat Washer - 5/8" (For use with Aluminum Housing)	16
		Flat Washer - 3/8" (For use with Aluminum Housing)	4
F-1	97-223-1	Drive Gear Bearing Cap Group	
F-2	97-19-52-1X	Gasket	1
F-3	N.S.S.	Bearing Cap and Oil Seal Assembly	1
F-4	97-463-36-1X	Bearing Cap (Casting #97-19-37)	1
F-5	545002-4	Oil Seal with Installation Sleeve	1
		Bolt - 3/8"-16 x 1 1/8" Hex Head Self-locking	4
G-1	See Tab Bills	Case Group	
G-2	N.S.S.	Case Assembly	1
N.S.	NP-96	Case	1
N.S.	252-SP	Name Plate	1
G-3	62-39-3	Pin - Name Plate	4
G-4	62-39-3	Filler Plug (Magnetic)	1
G-5	97-39-1	Drain Plug (Magnetic)	1
G-6	97-420-4	Drain Plug (Magnetic)	1
G-7	274-SP	Tube - Oil Transfer	1
G-8	330755	Dowel Pin - (To locate Shifter Housing to Case)	2
N.S.	330934	Dowel Pin - (To locate Clutch Housing to Case)	2
G-9	50-267-2	Ceramic Magnet - Bottom front	1
G-10	330800	Cover - Six Bolt P.T.O. Aperture	2
		Bolt - 3/8"-16 x 3/4" - Flanged Head Self-locking	12





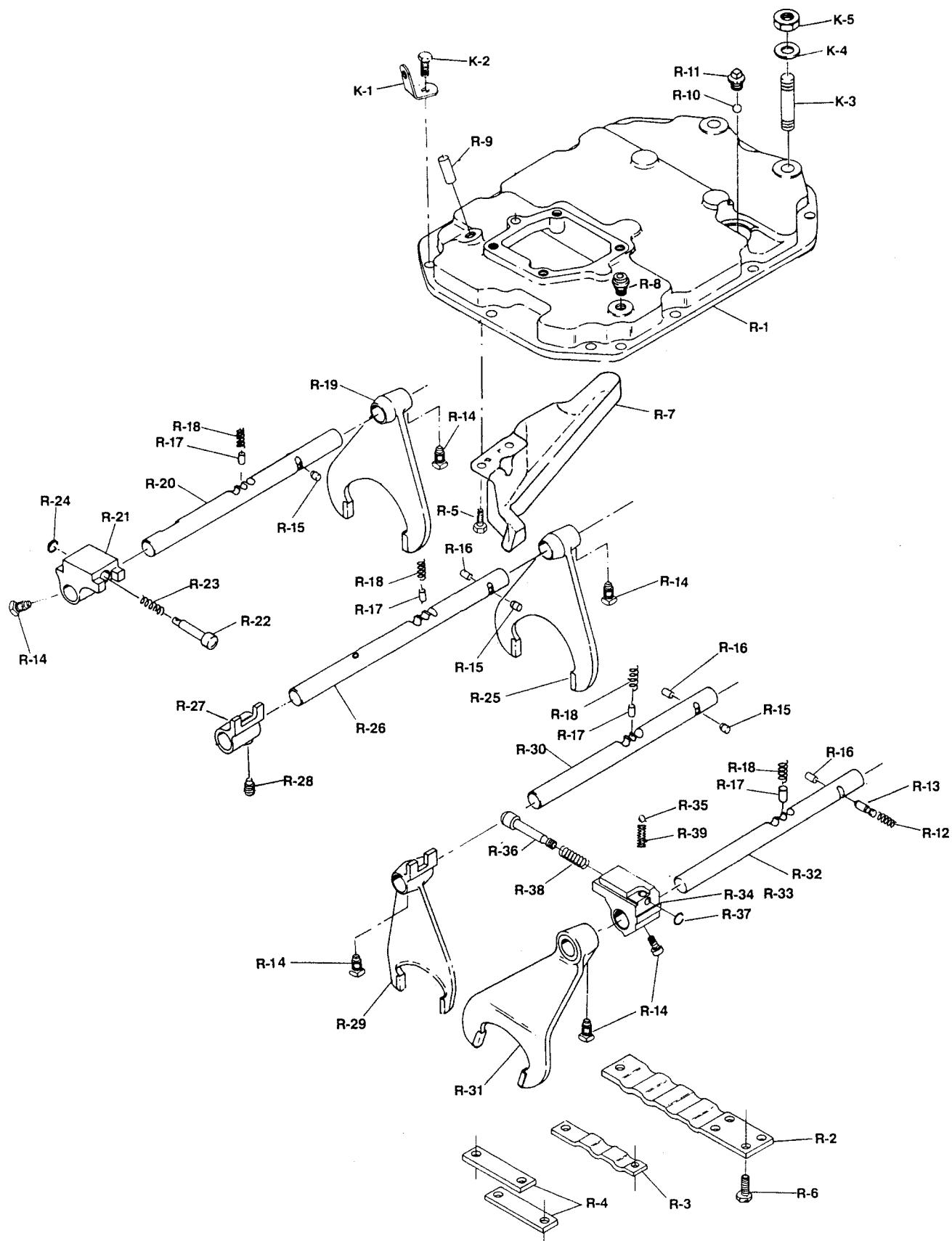
Models PS110-7A/7B & PS145-7A
CASE, BEARING CAP and RELATED PARTS

T210-PS145-7

Ref. No.	Part No.	Part Description	Qty
H-1	97-19-53-1X	Mainshaft Rear Bearing Cap - (For Gear Driven Speedometer) Bearing Cap, Bushing, Gasket, and Oil Seal Assembly	1
H-2	N.S.S.	Bearing Cap	1
H-3	60-475-1	Bushing - Speedometer	2
H-4	97-223-2	Gasket	1
H-5	97-463-39	Oil Seal	1
N.S.	545021	Plug - Electronic Speedometer/Cruise	2
H-6	See Tab Bills	Gear - Speedometer Driven	1
N.S.	55-334-1	Plug - (Used without Speedometer Gear)	1
H-7	55-454-1	Sleeve - Speedometer Driven Gear	1
H-8	545001-4	Bolt - 1/2"-13 x 1 1/2" Hex Head Self-locking	4
and	545001-8	Bolt - 1/2"-13 x 2 1/2" Hex Head Self-locking	2
Mainshaft Rear Bearing - (For Electronic Speedometer)			
H-1	97-19-53-1X	Bearing Cap, Bushing, Gasket, and Oil Seal Assembly	1
H-2	N.S.S.	Bearing Cap	1
H-3	60-475-1	Bushing - Speedometer	2
H-4	97-223-2	Gasket	1
H-5	97-463-39	Oil Seal	1
N.S.	545021	Plug - Electronic Speedometer/Cruise	2
N.S.	55-334-1	Plug - Speedometer Outlet	1
H-8	545001-4	Bolt - 1/2"-13 x 1 1/2" Hex Head Self-locking	4
and	545001-8	Bolt - 1/2"-13 x 2 1/2" Hex Head Self-locking	2
Countershaft Rear Bearing Cap Group			
J-1	97-22-23	Cap - Countershaft Rear Bearing	2
J-2	97-96-23	Cap - Reverse Idler	2
J-3	545015	Bolt - 3/8"-16 x 15/16" Flanged Head Self-locking	10
J-4	330564	Lift Hook	2
N.S.	545056	Anaerobic Sealant	A/R
Countershaft Rear Bearing Cap Group with PTO Oil Pump			
N.S.	313292	PTO Oil Pump Assy.	1
N.S.	97-22-21	Countershaft Rear Bearing Cap pump mounting (usually on left side)	1
N.S.	70-223-25	Countershaft Oil Pump mounting Gasket	1
J-1	97-22-23	Cap - Countershaft Rear Bearing (usually on right side)	1
N.S.	97-223-22	Gasket - Countershaft Rear Bearing Cap	2
J-3	545015	Bolt - 3/8"-16 x 15/16" Flanged Head Self-locking (for 97-22-23 Cap)	4
N.S.	545002-6	Bolt - 3/8"-16 x 1.250" Flanged Head Self-locking (for 97-22-21 Cap)	4
N.S.	545051	Elbow - Pump inlet 90 deg.	1

Models PS110-7A/7B & PS145-7A
SHIFTER HOUSING ASSEMBLY
FORWARD CONTROL

T210-PS145-7





Models PS110-7A/7B & PS145-7A

SHIFTER HOUSING ASSEMBLY

FORWARD CONTROL

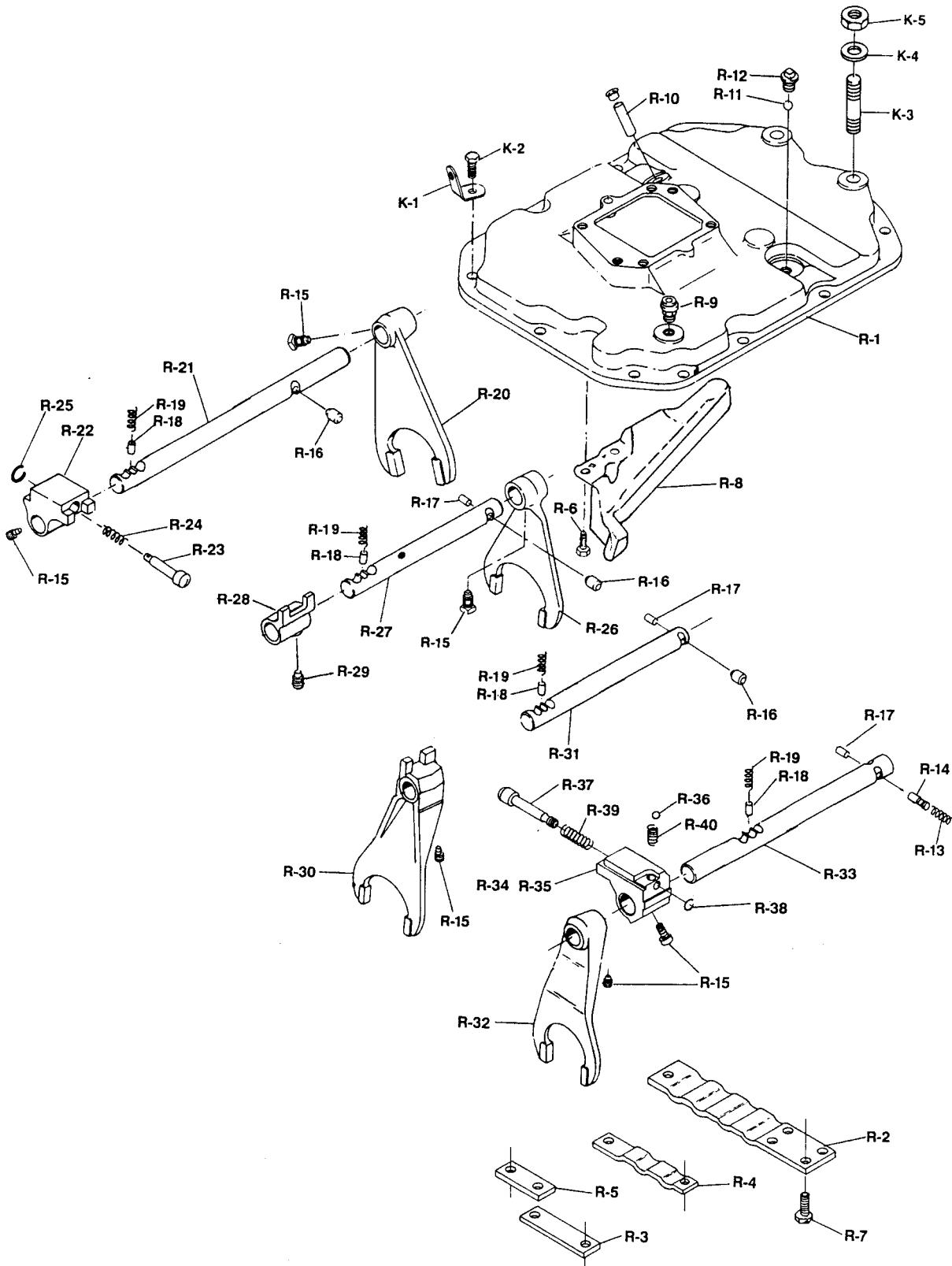
T210-PS145-7

Ref. No.	Part No.	Part Description	Qty
R-1	See Tab Bills 97-16-100-1X N.S.S.	Shifter Housing Assembly Shift Housing, Oil Trough, and Shift Rod Retainers Shift Housing	1 1 1
R-2	97-360-9	Retainer - Shift Rod (Rear)	1
R-3	97-360-10	Retainer - Shift Rod (Center)	1
R-4	97-360-11	Retainer - Shift Rod (4th,5th,6th & 7th) (Front)	2
R-5	545125-2	Screw - Oil Trough - 3/4"-16 x 3/4" Self Tapping	2
R-6	545125-1	Screw - Shift Rod Retainers (1.00" long) Self Tapping	9
R-7	97-468-2	Oil Trough	1
N.S.	545126	Screw - Control Hsg.	4
R-8	312268	Breather	1
R-9	330739-1	Pin - Back-up Light	1
R-10	50-80-4	Ball - Neutral Safety Switch	1
R-11	545021	Plug - Neutral Safety Switch	1
R-12	97-72-31	Spring - Interlock Neutral Safety Switch	1
R-13	97-438-25	Plunger - Neutral Safety Switch	1
R-14	545063	For All Shift Forks, Brackets and Rod Groups	
R-15	97-12-5	Set Screw - .437"-20 x .750" w/.50" full thd. 60 deg. incl. point.	7
R-16	194-SP	Interlock - Shift Rod	3
R-17	97-438-34	Pin - Interlock	3
R-18	97-72-37	Poppet - Shift Rod	4
R-19	97-66-124	Spring - Shift Rod Poppet	4
R-20	97-67-307-1X *	First and Reverse Shift Rod Group	
R-21	97-354-11	Shift Fork	1
R-22	97-438-30	Shift Rod	1
R-23	97-72-2	Shift Rod Bracket	1
R-24	97-381-3	Plunger - 1st and Reverse Shift Bracket	1
R-25	97-66-110	Spring - 1st and Reverse Shift Bracket Plunger	1
R-26	97-67-341-1X *	Snap Ring - 1st and Reverse Shift Bracket Plunger	1
R-27	97-354-3	Second and Third Shift Rod Group	
R-28	545063	Shift Fork	1
R-29	97-66-55	Shift Rod	1
R-30	97-67-293-1X *	Shift Rod Bracket	1
R-31	97-66-120	Set Screw - .437"-20 x .750" w/.50" full thd. 60 deg. incl. point.	1
R-32	97-67-292-1X *	Fourth and Fifth Shift Rod Group	
R-33	97-354-32-1X	Shift Fork	1
R-34	97-354-32	Shift Rod	1
R-35	50-80-1	Shift Rod Bracket Assembly	1
R-36	97-438-27	Shift Rod Bracket	1
R-37	97-381-47	Ball - Shift Bracket Poppet	1
R-38	97-72-34	Plunger - Shift Bracket	1
R-39	97-72-33	Snap Ring	1
N.S.	545056-5	Spring - Shift Bracket Plunger Pin	1
K-1	330564-1	Spring - Shift Bracket Pilot Pin	1
K-2	545002-4	Parts Listed Below Are Not Included in Assembly	A/R
K-3	330360-15	Anaerobic Sealant	
or	330360-18	Lift Hook	4
K-4	500365-43	Bolt - 3/8"-16 x 1 1/2" Hex Head Self-locking	10
K-5	500371-7	Stud - 5/8"-11 & 5/8"-18 x 3 1/2"	2
		Stud - 5/8"-16 & 5/8"-18 x 4"	2
		Washer - 5/8" Flat	2
		Nut - 5/8"-18	2

* - Includes (1) each of R-17 and R-18

Models PS110-7A/7B & PS145-7A
SHIFTER HOUSING ASSEMBLY
CENTER CONTROL

T210-PS145-7





**Models PS110-7A/7B & PS145-7A
SHIFTER HOUSING ASSEMBLY
CENTER CONTROL**

T210-PS145-7

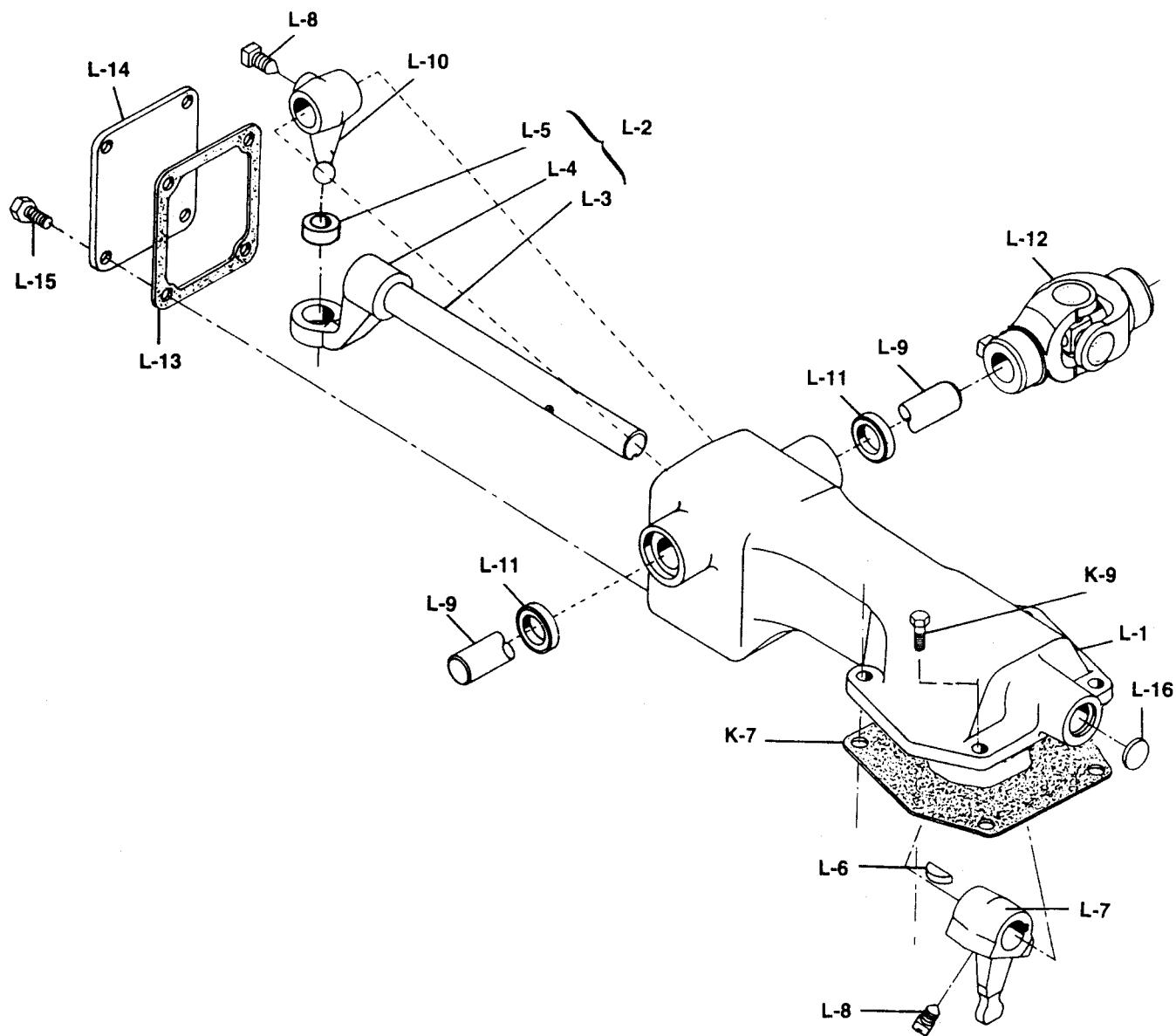
Ref. No.	Part No.	Part Description	Qty
R-1	See Tab Bills 97-16-99-1X	Shifter Housing Assembly Shifter Housing, Oil Trough and Shift Rod Retainers	1
	N.S.S.	Shift Housing	1
R-2	97-360-9	Retainer - Shift Rod (Rear)	1
R-3	97-360-11	Retainer - Shift Rod (4th,5th,6th & 7th) (Front)	1
R-4	97-360-12	Retainer - Shift Rod (Center)	1
R-5	97-360-13	Retainer - Shift Rod (1st & Reverse) (Front)	1
R-6	545125-2	Screw - Oil Trough	2
R-7	545125-1	Screw - Shift Rod Retainers (1.00" long)	9
R-8	97-468-2	Oil Trough	1
N.S.	545126	Screw - Control Hsg.	4
R-9	312268	Breather	1
R-10	330739-1	Pin - Back-up Light	1
R-11	50-80-4	Ball - Neutral Safety Switch	1
R-12	545021	Plug - Neutral Safety Switch	1
R-13	97-72-31	Spring - Interlock Neutral Safety Switch	1
R-14	97-438-25	Plunger - Interlock Neutral Safety Switch	1
R-15	545063	For All Shift Forks, Brackets and Rod Groups Set Screw - .437"-20 x .750" w/.50" full thd. 60 deg. incl. point.	7
R-16	97-12-5	Interlock - Shift Rod	3
R-17	194-SP	Pin - Interlock	3
R-18	97-438-34	Poppet - Shift Rod	4
R-19	97-72-37	Spring - Shift Rod Poppet	4
R-20	97-66-124	First and Reverse Shift Rod Group Shift Fork	1
R-21	97-67-303-1X *	Shift Rod	1
R-22	97-354-11	Shift Rod Bracket	1
R-23	97-438-30	Plunger - 1st and Reverse Shift Bracket	1
R-24	97-72-2	Spring - 1st and Reverse Shift Bracket Plunger	1
R-25	97-381-3	Snap Ring - 1st and Reverse Shift Bracket Plunger	1
R-26	97-66-110	Second and Third Shift Rod Group Shift Fork	1
R-27	97-67-344-1X *	Shift Rod	1
R-28	97-354-3	Shift Rod Bracket	1
R-29	545063	Set Screw - .437"-20 x .750" w/.50" full thd. 60 deg. incl. point.	1
R-30	97-66-61	Fourth and Fifth Shift Rod Group Shift Fork	1
R-31	97-67-305-1X *	Shift Rod	1
R-32	97-66-120	Sixth and Seventh Shift Rod Group Shift Fork	1
R-33	97-67-306-1X *	Shift Rod	1
R-34	97-354-32-1X	Shift Rod Bracket Assembly	1
R-35	97-354-32	Shift Rod Bracket	1
R-36	50-80-1	Ball - Shift Bracket Poppet	1
R-37	97-438-27	Plunger - Shift Bracket	1
R-38	97-381-47	Snap Ring	1
R-39	97-72-34	Spring - Shift Bracket Plunger Pin	1
R-40	97-72-33	Spring - Shift Bracket Pilot Pin	1
N.S.	545056-5	Parts Listed Below are not Included in Assembly Anaerobic Sealant	A/R
K-1	330564-1	Lift Hook	4
K-2	545002-4	Bolt - 3/8"-16 x 1 1/2" Hex Head Self-locking	10
K-3	330360-15	Stud - 5/8"-11 & 5/8"-18 x 3 1/2"	2
or	330360-18	Stud - 5/8"-16 & 5/8"-18 x 4"	2
K-4	500365-43	Washer - 5/8" Flat	2
K-5	500371-7	Nut - 5/8"-18	2

* - Includes (1) each of R-18 and R-19

Models PS110-7A/7B & PS145-7A
REMOTE CONTROL ASSEMBLY
HIGH ROD TYPE

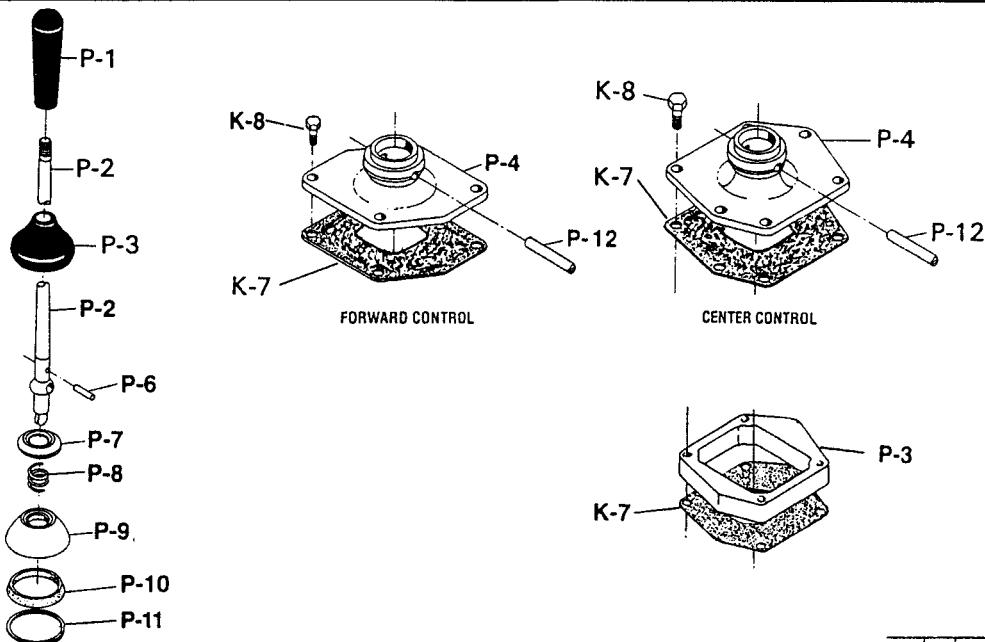
T210-PS145-7

TTC
TRANSMISSION
TECHNOLOGIES
Corporation



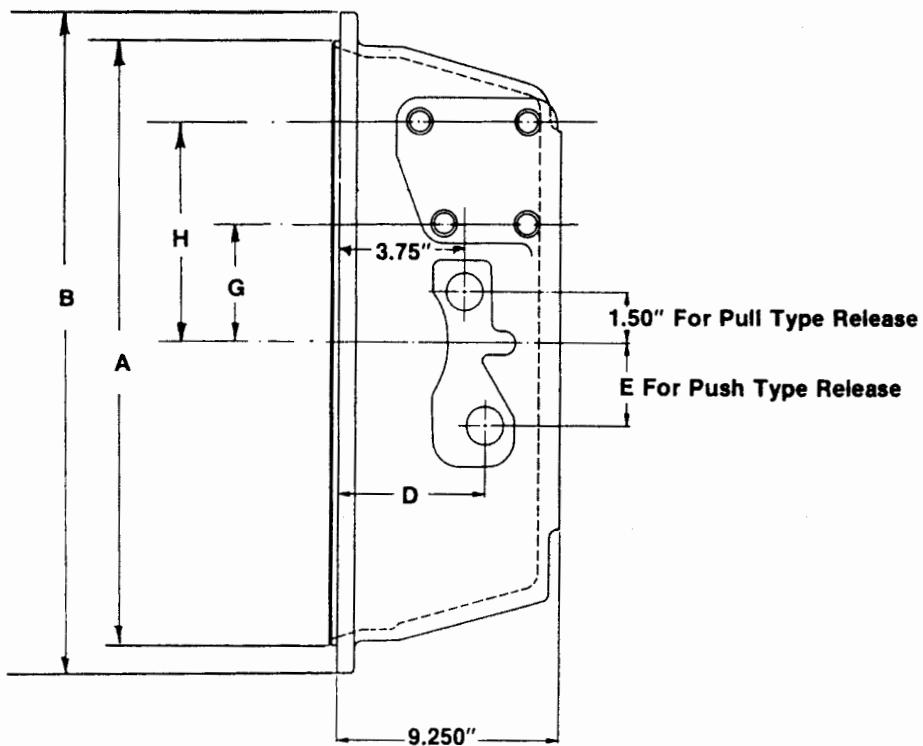
Models PS110-7A/7B & PS145-7A
REMOTE CONTROL ASSEMBLY
T210-PS145-7

Ref. No.	Part Number	Part Description	80-49X	97-18-4-2X	97-18-6-2X	73-16-3-1X	312-752-2X	85-16-4-2-2X	311-890-1X	97-18-3-2X
	See Tab Bills	Cover & Joint Assembly—Remote Control	1	1	1	1	1	1	1	1
	311866X	Cover Assembly	1	—	—	—	—	—	—	—
	312755X	Cover Assembly	—	—	—	1	—	—	—	—
	311914X	Cover Assembly	—	—	—	—	1	—	—	—
	97-18-16-1X	Cover Assembly	—	—	1	—	—	—	—	—
	85-16-42-1X	Cover Assembly (Rotated 180 Degrees and Welded)	—	—	—	—	—	1	—	—
	97-18-3-1X	Cover Assembly	—	—	—	—	—	—	1	—
	97-18-4-1X	Cover Assembly	—	1	—	—	—	—	—	—
L-1	N.S.S.	Remote Control Cover	1	1	1	1	1	1	1	1
N.S.	82-24-3	Bushing—Remote Control Cover	4	4	4	4	4	4	4	4
L-2	8093X	Shift Finger Rod and Bracket Assembly	1	—	—	—	—	—	—	—
	311888X	Shift Finger Rod and Bracket Assembly	—	—	1	—	—	—	—	1
	312754X	Shift Finger Rod and Bracket Assembly	—	—	—	1	—	—	—	—
	97-65-39-1X	Shift Finger Rod and Bracket Assembly	—	1	—	—	—	—	—	—
	97-65-41-1X	Shift Finger Rod and Bracket Assembly	—	—	1	—	—	—	—	—
	85-65-11-1X	Shift Finger Rod and Bracket Assembly	—	—	—	—	1	—	—	—
	97-65-32-1X	Shift Finger Rod and Bracket Assembly	—	—	—	—	—	—	—	1
L-3	N.S.S.	Rod—Shift Finger	1	1	1	1	1	1	1	1
L-4	N.S.S.	Bracket—Shift Finger	1	1	1	1	1	1	1	1
L-5	85-24-4	Bushing—Shift Bracket	1	1	1	1	1	1	1	1
L-6	5000007-19	Woodruff Key #11	1	1	1	1	1	1	1	1
L-7	82-6-9	Finger—Inner Shift	1	1	1	1	1	1	1	1
L-8	545063	Bolt—7/16"-20 x 13/16" Hex Head Self-locking	2	2	2	2	2	2	2	2
L-9	82-65-5	Rod—Remote Control	1	1	1	—	1	1	1	—
	82-65-22	Rod—Remote Control	—	—	—	—	1	—	—	—
L-10	82-6-7	Finger—Outer Shift	1	1	1	1	1	1	1	1
L-11	28P-19	Seal—Remote Control Shift Rod	2	2	2	2	2	2	2	2
L-12	10380-SF	U-Joint Assembly—Control Rod	1	—	—	1	1	1	1	1
	904388	U-Joint Assembly—Control Rod	—	1	1	1	—	—	—	—
L-13	82-118-1	Gasket—Aperture Cover	1	1	1	1	1	1	1	1
L-14	82-96-1	Aperture Cover	1	1	1	1	1	1	1	1
L-15	545005-1	Bolt—5/16"-18 x 5/8" Hex Head Self-locking	4	4	4	4	4	4	4	4
L-16	500166-16	Expansion Plug—1 1/16"	1	1	1	1	1	1	1	1
N.S.	311903X	Boot Kit—Remote Control	1	1	—	1	1	—	1	—
N.S.	82-483-1	Boot—Standard	1	1	—	1	1	—	1	—
N.S.	82-483-2	Boot—Cup Type	1	1	—	1	1	—	1	—
N.S.	LW-3-9	Lockwire #18-M Gage (9"long)	3	3	—	3	3	—	3	—
N.S.	313259	Valve—Road Speed Governor Control	—	1	1	—	—	—	—	—
Parts Listed Below Are Not Included in Assembly										
K-7	97-155-12	Gasket—Remote Control Cover	1	1	1	1	1	1	1	1
K-9	545126	Bolt—7/16"-14 x 1 1/8" Hex Head Self-locking	4	4	4	4	4	4	4	4



REF. NO.	PART NO.	PART DESCRIPTION	85-16-37-2X	85-16-37-6X	85-16-37-17X	85-16-37-53X	85-16-37-59X	97-17-1-1X	312820-1X
P-1	See Tab Bills 39Q-27 39Q-29	Shift Lever and Dome Assembly	1	1	1	1	1	1	1
P-2	25Q-1106 25Q-1533 25Q-1570 25Q-2168	Handle - Shift Lever	1	—	—	—	—	—	—
P-3	85-37-9	Handle - Shift Lever	—	—	1	—	1	—	1
K-7	97-155-12 or 97-155-13	Shift Lever - Length 28 1/2" Straight	—	—	—	—	—	—	1
K-8	545126	Shift Lever - Length 33" Straight	—	—	—	—	—	—	1
		Shift Lever - Length 33" Straight	—	—	—	—	—	—	1
		Shift Lever - Length 26.80" (2) Bends	—	—	—	—	—	—	1
P-4	82-16-19X 85-16-37X 97-17-1-1X	Spacer - Dome to Shifter Housing	1	1	1	1	1	—	—
P-4	82-16-19 85-16-37 97-17-1	Gasket - Center (6 Holes)	2	2	2	2	2	—	—
P-4	82-16-19 85-16-37 97-17-1-1X	Gasket - Forward (4 Holes)	4	4	4	4	4	—	—
P-4	82-16-19	Bolt - 7/16"-14 x 2 1/4" Hex Head Self-locking	—	—	—	—	—	—	—
P-4	82-16-19 85-16-37 97-17-1-1X	Dome Assembly - Shift Lever (Center)(Includes P-4 thru P-12)	—	—	—	—	—	—	1
P-4	82-16-19 85-16-37 97-17-1-1X	Dome Assembly - Shift Lever (Center)(Includes P-4 thru P-12)	1	1	1	1	1	—	—
P-4	82-16-19 85-16-37 97-17-1-1X	Dome Assembly - Shift Lever (Forward)(Includes P-4 thru P-12)	—	—	—	—	—	—	—
P-5	55Q-5	Dome - Shift Lever - 2 5/32" Height	—	—	—	—	—	—	1
P-6	286-SP	Dome - Shift Lever - 3 5/32" Height	—	—	—	—	—	—	1
P-7	55Q-7	Dome - Shift Lever - 4 5/8" Height	—	—	—	—	—	—	1
P-8	56Q-25	Gromet - Shift Lever	1	1	1	1	1	1	1
P-9	54Q-13	Pin - Shift Lever Compression Collar	1	1	1	1	1	1	1
P-10	69Q-6	Collar - Compression	1	1	1	1	1	1	1
P-11	62-381-7	Spring - Compression	1	1	1	1	1	1	1
P-12	53Q-15	Cup - Compression	1	1	1	1	1	1	1
		Washer - Friction	1	1	1	1	1	1	1
		Snap Ring - Rocker Shaft	1	1	1	1	1	1	1
		Rocker Shaft - Shift Lever	1	1	1	1	1	1	1
Parts Listed Below Are Not Included in Assembly									
K-7	97-155-12	Gasket - Dome to Shifter Housing (6 Holes)	—	—	—	1	1	1	1
K-8	97-155-13	Gasket - Dome to Shifter Housing (4 Holes)	—	—	—	1	1	1	1
K-8	545126	Bolt - 7/16"-14 x 2 1/4" Hex Head Self-locking	—	4	—	4	4	4	4

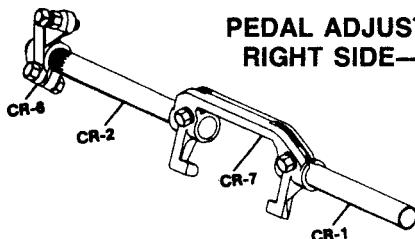
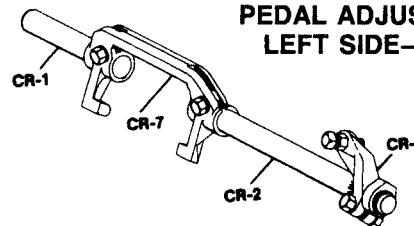
Size No.	A Pilot Dia.	B O.D.
1	20 $\frac{1}{8}$ "	21 $\frac{3}{4}$ "
2	17 $\frac{5}{8}$ "	19 $\frac{1}{4}$ "

NODAL MOUNT

Part No. E-2	Casting No.	Material	SAE #	D Lower Hole Dim. Face To Center Hole	E Below Center	G	H
-----------------	-------------	----------	-------	---	----------------------	---	---

97-518-52-1X C97-518-35 Iron 2 4.375" 2.375" 3.50" 6.50"

97-518-66-1X C97-518-33 Iron 1 3.750" 1.500" 4.00" 8.50"

PEDAL ADJUSTING ARM
RIGHT SIDE—310473XPEDAL ADJUSTING ARM
LEFT SIDE—310233X

CR-1 SHORT SHAFT

Part No.	Length
106C-1071	4.062"
106C-1141	5.125"
106C-1142	6.125"
106C-1185	5.750"
106C-1216	4.750"
106C-1278	4.812"
106C-1360	5.312"
106C-1375	6.781"
106C-1498	6.500"
106C-1544	7.000"
330601-1	6.250"

RS-5

RS-8

CR-2 LONG SHAFT

Part No.	Type	Length
106C-438	RS-5	14.000"
106C-588	RS-5	7.000"
106C-617	RS-8	10.469"
106C-839	RS-8	11.469"
106C-939	RS-8	10.000"
106C-953	RS-8	9.750"
106C-959	RS-8	11.968"
106C-960	RS-8	8.719"
106C-1046	RS-8	8.968"
106C-1047	RS-8	9.469"

CR-2 LONG SHAFT (Cont'd)

Part No.	Type	Length
106C-1083	RS-8	7.969"
106C-1094	RS-8	8.469"
106C-1123	RS-8	12.968"
106C-1169	RS-8	9.125"
106C-1315	RS-8	7.625"
106C-1367	RS-8	10.312"
106C-1375	RS-8	6.781"
106C-1417	RS-8	7.250"
106C-1422	RS-8	7.500"
106C-1490	RS-8	16.000"
106C-1515	RS-5	11.375"
106C-1529	RS-5	8.312"
330610-5	RS-8	9.469"
330610-11	RS-8	10.750"
46-510-9	RS-5	7.125"
330610-10	RS-8	9.500"

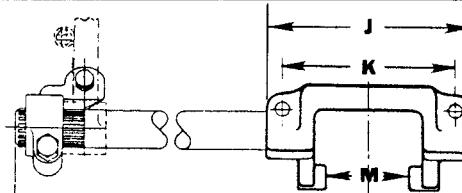
CR-6 PEDAL ADJ. ARM

310233X	For Left Side Mtg.
310473X	For Right Side Mtg.
47-526-1-1X*	Lever Type 7 1/4"
310873X*	Lever Type 7 1/4"

*Lever type can be used on either right or left side.

THRU SHAFT (used with Push Type Clutch)

Part No.	Type	Length
106C-1566	Splined	19.125"
106C-1550	Keyed	16.375"
106C-1558	Keyed	19.000"
106C-1578	Splined	19.500"
49-510-1	Keyed	19.120"
97-510-2	Splined	19.313"



See following page for "D" dimensions.

CLUTCH RELEASE YOKES

CR-7	Forging No.	Used With	Type	J	K	M
105C-64	F105C64	Spicer 15 1/2" SP	Pull	8.000"	6.500"	4.895"
105C-68	F105C99	Spicer 14"SP	Pull	7.125"	5.750"	4.132"
105C-117 ¹	F105C118	Spicer & Others	Push	8.375"	7.000"	4.885"
105C-124 [■]	F105C125	Spicer AL & AR	Push	3.750"	2.125"	2.885"
105C-132 ²	F105C118	Spicer & Others	Push	8.375"	7.000"	4.885"
105C-137	F105C138	Spicer 13" and 14" 2P	Pull	8.000"	6.500"	4.895"
85-509-3 ³	F105C118	Spicer & Others	Push	8.375"	7.000"	4.885"

¹Machined washer surface on yoke front²Machined washer surface on yoke rear (for clearance)³Same as ¹ above except contains spring holes in lugs[■]Use 7743X Clutch Release Bearing and (2) 2306-12 Springs.

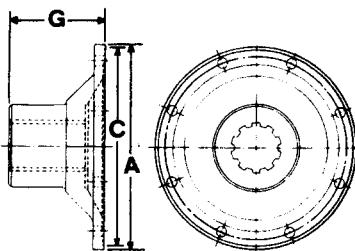
★ CLUTCH RELEASE YOKE ATTACHING PARTS—

Use one KEY 10-30, two SCREWS 330231 and two LOCK
WASHERS 500356-12NOTE: When changing from a two plate to single plate clutch or
vice versa, a different bearing cap will be required.

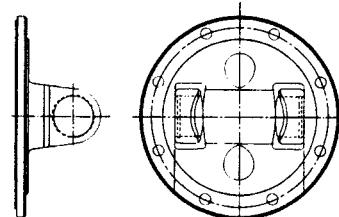
Models PS110-7A/7B & PS145-7A
COMPANION FLANGES
AND END YOKES

T210-PS145-7

TTG
TRANSMISSION
 TECHNOLOGIES
 Corporation



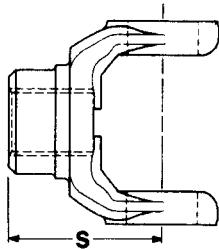
COMPANION FLANGE



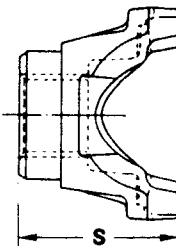
FLANGE YOKE

Companion Flanges and Flange Yokes

A Joint Series	Flange Diameter	Companion Flange Assembly	Companion Flange	G to Flange Face Length	C Pilot Diameter F-Female M-Male	Mates With	
						Flange Yoke	Series
1710	8.00"	-	6-1-5821	6.31"	M-6.436"	-	1710
1810	8.00"	-	6.5-1-269	3.64"		-	1810



FULL ROUND



U-BOLT—BRG. STRAP—HALF ROUND

Series	Yoke Style	End Yoke Part Number	S End of Hub To Center Line Length	Momentary Joint Angle	Brake Size	Spline Type
1610	Half Round	5-4-7951-1	5 1/2"	18 1/2°	—	Fine
1710	Full Round	6-4-7691	5 3/16"	20°	—	Fine
1710	Half Round	6-4-7691-1	5 3/16"	20°	—	Fine
1760	Full Round	6.3-4-1251	5 9/16"	30°	—	Fine
1760	Half Round	6.3-4-1251-1	5 9/16"	30°	—	Fine
1810	Full Round	6.5-4-3821	5 9/16"	30°	—	Fine
1810	Half Round	6.5-4-3821-1	5 9/16"	30°	—	Fine

NOTES

**Models PS110-7A/7B & PS145-7A
SERVICE PARTS OVERHAUL KITS**


Part No.	Part Description	313400		
		-80X	-79X	-78X
	Major Overhaul Kits	1	1	1
	Found Only in Major Overhaul Kits			
97-35-102	Input Shaft - 2.000"-10 Spline #306 Pilot	1	-	-
97-35-106	Input Shaft - 1.750"-10 Spline #205 Pilot	-	1	-
97-35-105	Input Shaft - 1.750"-10 Spline #306 Pilot	-	-	1
500010-8	Woodruff Key #29	12	12	12
545065	Nut - Mainshaft (1 3/4"-16 S.A.E. Thread)	1	1	1
313432-35X	Minor Overhaul Kit (Included in Major Overhaul Kits)	1	1	1
550031	Bearing - Countershaft Front	2	2	2
550992	Bearing - Drive Gear/Input Shaft Front	1	1	1
550959	Bearing - Countershaft Rear	2	2	2
550953	Bearing - Drive Gear/Input Shaft Pocket Roller	1	1	1
550925	Bearing - Mainshaft Rear (Auxiliary Output)	1	1	1
550886	Bearing - Reverse Idler Gear Roller Assembly	4	4	4
97-463-36-1X	Oil Seal - Drive Gear Bearing Cap (Includes 2815 Installation Bulletin and Installation Sleeve)	1	1	1
97-463-39	Oil Seal - Mainshaft Rear Bearing Cap	1	1	1
545077	Packet - #2 Moly Grease	1	1	1
545080-1	Adhesive - Mainshaft Nut Anaerobic Sealant	1	1	1
312475-33X	Gasket Kit (Included in Major and Minor Overhaul Kit)	1	1	1
545056-9	Anaerobic Sealant - (1) 24cc Tube	1	1	1
97-155-12	Gasket - Control Housing (Center Control)	1	1	1
97-155-13	Gasket - Control Housing (Forward Control)	1	1	1
97-223-1	Gasket - Drive Gear Bearing Cap	1	1	1
97-223-2	Gasket - Mainshaft Rear Bearing Cap	1	1	1
82-118-1	Gasket - Remote Control Aperture Cover	1	1	1
2754	Bulletin - Liquid Gasket	1	1	1
2770	Bulletin - Pocket Bearing Lubrication Instructions	1	1	1
2783	Bulletin - Mainshaft Nuts	1	1	1



Models PS110-7A/7B & PS145-7A SERVICE PARTS OVERHAUL KITS

T210-PS145-7

Part No.	Part Description	313400		
		-80X	-79X	-78X
313429-24X	Shifter Housing Repair - Small Parts (Included in Major Overhaul Kit)	1	1	1
97-12-5	Interlock	3	3	3
194-SP	Pin - Interlock	2	2	2
330739-1	Pin - Reverse Switch	1	1	1
97-438-30	Plunger - 1st & Reverse Shift Bracket	1	1	1
97-438-34	Poppet - Shift Rod	4	4	4
97-381-3	Snap Ring - Poppet 1st & Reverse Shift Bracket Plunger	1	1	1
545125-1	Screw - Shift Rod Retainers	7	7	7
97-72-37	Spring - Shift Rod Poppet	4	4	4
97-72-2	Spring - 1st & Reverse Shift Bracket Plunger	1	1	1
50-80-4	Ball - Neutral Safety Switch	1	1	1
97-72-31	Spring - Interlock (used with Neutral Safety Switch)	1	1	1
313401-31X	Thrust Washer Kit - (Included in Major Overhaul Kit)	1	1	1
330810	Mainshaft Thrust Washer External (24T) Large	4	4	4
330814	Mainshaft Thrust Washer External (20T) Small	2	2	2
330959	Mainshaft Thrust Washer Internal (48T) Large	5	5	5
330960	Mainshaft Thrust Washer Internal (36T) Small	2	2	2
330961	Mainshaft Thrust Washer Internal (22T)	1	1	1
330806	Mainshaft Thrust Washer Internal (17T)	1	1	1
313024-27X	Snap Ring Kit - (Included in Major and Minor Overhaul Kit)	1	1	1
54-381-1	Snap Ring - Countershaft Rear Bearing Retaining	2	2	2
97-381-30	Snap Ring - Countershaft Front Bearing Retaining	2	2	2
97-381-44	Snap Ring - Drive Gear	1	1	1
97-381-42	Snap Ring - Input Shaft Front Bearing Retaining	1	1	1
97-381-41	Snap Ring - Input Shaft Bearing Cap Retaining	1	1	1
97-381-1	Snap Ring - Mainshaft Internal (Small)	2	2	2
98-381-2	Snap Ring - Mainshaft Internal (Large)	3	3	3
98-381-1	Snap Ring - Mainshaft External (Large)	5	5	5
97-381-32	Snap Ring - Mainshaft Internal (Reverse Gear)	2	2	2
97-381-45	Snap Ring - Mainshaft External (Small)	2	2	2
97-381-43	Snap Ring - Mainshaft 4th & 5th Internal Stop	2	2	2
97-381-46	Snap Ring - Mainshaft External	1	1	1
97-381-2	Snap Ring - Mainshaft Internal	1	1	1

Models PS110-7A/7B & PS145-7A

T210-PS145-7

TABULATED BILLS OF MATERIAL



Tab No.	Used By	For Use With Clutch	S	Clutch Housing Assembly Number	Rel. Code	Drive Gear Input Shaft A-1	Drive Gear Brg. Cap F-2	Case Assy. G-1		
			A	E						
Model PS110-7A										
301519										
-51 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-52 Navistar	Pull Type	2	97-518-52-1X	-	97-35-106-1X	97-19-52-1X	97-15-56-1X			
-53 Navistar	Pull Type	2	97-518-52-1X	-	97-35-106-1X	97-19-52-1X	97-15-56-1X			
-54 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-55 Not Assigned										
**-56 Volvo GM	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-57 Ford	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-58 Freightliner	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-59 Ford	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-60 Freightliner	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-61 Navistar	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-62 Navistar	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
Model PS110-7B										
301518										
-1 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-2 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-3 Navistar	Pull Type	2	97-518-52-1X	-	97-35-106-1X	97-19-52-1X	97-15-56-1X			
**-4 Volvo-GM	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-5 DPD Australia	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-6 Ford	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-7 Ford	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
**-8 Volvo-GM	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-9 Ford	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-10 Freightliner	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
@-11 Freightliner	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-12 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X			
-13 Navistar	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-14 Navistar	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-15 Ford	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-16 Ford	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X			
-17 Kenworth	Pull Type	1	97-518-66-1X	100	97-35-102-1X	97-19-52-1X	97-15-56-1X			

** - Includes Neutral Start Switch

@ - Countershaft PTO provision both sides



Models PS110-7A/7B & PS145-7A

TABULATED BILLS OF MATERIAL

T210-PS145-7

Tab No.	Mainshaft Rear Brg. Cap Assy. H-2	Speedo Drive or Sig. Gear B-30	Speedo Driven H-7	Compan. Flng. or Yoke 21	Shft. Hsg. Assembly 11-14	Lever & Dome 18	Remote Control 16
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Model PS110-7A

301519

-51	97-19-53-1X	-	-	-	97-16-99-3X	-	-
-52	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-53	97-19-58-1X	-	-	-	97-16-100-3X	-	-
-54	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-55	Not Assigned						
-56	97-19-53-1X	97-452-19	-	-	97-16-100-3X	-	-
-57	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-99-3X	-	-
-58	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-100-3X	-	-
-59	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-100-3X	-	-
-60	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-99-3X	-	-
-61	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-62	97-19-58-1X	-	-	-	97-16-100-3X	-	-

Model PS110-7B

301518

-1	97-19-53-1X	-	-	-	97-16-99-3X	-	-
-2	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-3	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-4	97-19-53-1X	97-452-19	-	-	97-16-100-3X	-	-
-5	97-19-53-1X	97-452-19	-	6.5-4-3821-1	97-16-99-3X	-	-
-6	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-99-3X	-	-
-7	97-19-53-1X	97-452-19	-	6.3-4-1251-1	97-16-100-3X	-	-
-8	97-19-53-1X	-	-	-	97-16-99-3X	-	-
-9	97-19-53-1X	97-452-19	-	6.5-4-3821-1	97-16-100-3X	-	-
-10	97-19-53-1X	97-452-19	-	6.3-4-1251-1	97-16-99-4X	-	-
-11	97-19-53-1X	97-452-19	-	6.3-4-1251-1	97-16-99-4X	-	-
-12	97-19-53-1X	-	-	-	97-16-99-3X	-	-
-13	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-14	97-19-58-1X	-	-	-	97-16-100-3X	-	-
-15	97-19-53-1X	97-452-19	-	6.3-4-1251-1	97-16-100-3X	-	-
-16	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-100-3X	-	-
-17	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-99-3X	-	-

Models PS110-7A/7B & PS145-7A

T210-PS145-7

TABULATED BILLS OF MATERIAL



Tab No.	Used By	For Use With Clutch	S A E	Clutch Housing Assembly Number	Rel. Code	Drive Gear Input Shaft A-1	Drive Gear Brg. Cap F-2	Case Assy. G-1
Model PS145-7A								
301520								
-101 Freightliner	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-102 Peterbilt	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-103 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-104 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-105 DPD Australia	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-106 Prevost	Pull Type	1	97-518-66-1X	59	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-107 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-108 Ford	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X	
**-109 Volvo-GM	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
#-110 FWD	Pull Type	1	97-518-66-1X	62	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-111 Ford	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-112 Ford	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-113 Navistar	Pull Type	2	97-518-52-1X	-	97-35-106-1X	97-19-52-1X	97-15-56-1X	
-114 Ford	Pull Type	2	97-518-52-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-115 Kenworth	Pull Type	1	97-518-66-1X	100	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-116 Volvo GM	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-117 Volvo GM	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
<-118 Crane Carrier	Pull Type	1	97-518-66-1X	102	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-119 Eagle International	Pull Type	1	97-518-66-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X	
-120 Ford	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X	
-121 Freightliner	Pull Type	2	97-518-52-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-122 Freightliner	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-123 Freightliner	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-124 Navistar	Pull Type	2	97-518-52-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X	
*-125 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-126 Navistar	Pull Type	2	97-518-52-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
*-127 Navistar	Pull Type	1	97-518-66-1X	-	97-35-102-1X	97-19-52-1X	97-15-56-1X	
-128 Eagle International	Pull Type	1	97-518-66-1X	-	97-35-105-1X	97-19-52-1X	97-15-56-1X	

* - With Countershaft Oil Pump

- With 97-454-2-1X has (1) ea. 97-452-2 Speedo Sleeve and 97-463-34 Oil Sleeve

** - Includes 313291 Neutral Start Switch

< - With Clutch Brake Assembly 127760X



Models PS110-7A/7B & PS145-7A
TABULATED BILLS OF MATERIAL

T210-PS145-7

Tab No.	Mainshaft Rear Brg. Cap Assy. H-2	Speedo Drive or Sig. Gear B-30	Speedo Driven H-7	Compan. Flng. or Yoke 21	Shft. Hsg. Assembly 11-14	Lever & Dome 18	Remote Control 16
Model PS145-7A							
301520							
-101	97-19-53-1X	97-452-19	-	-	97-16--99-4X	-	-
-102	97-19-53-1X	-	-	-	97-16-99-3X	-	-
-103	97-19-53-1X	-	-	-	97-16-99-3X	-	-
-104	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-105	97-19-53-1X	-	-	-	97-16--99-4X	-	-
-106	97-19-53-1X	97-452-18	97-453-15	-	97-16-99-3X	-	-
-107	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-108	97-19-53-1X	97-452-19	-	-	97-16-99-3X	-	-
-109	97-19-53-1X	97-452-19	-	-	97-16-100-3X	-	-
-110	97-19-53-1X	97-452-20	97-453-16 *	-	97-16-99-3X	-	-
-111	97-19-53-1X	97-452-19	-	6.3-4-1251-1	97-16-100-3X	-	-
-112	97-19-53-1X	97-452-19	-	6.5-4-3821-1	97-16-100-3X	-	-
-113	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-114	97-19-53-1X	97-452-19	-	6.5-4-3821-1	97-16-100-3X	-	-
-115	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-99-3X	-	-
-116	97-19-53-1X	97-452-19	-	-	97-16-99-3X	-	-
-117	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-100-3X	-	-
-118	97-19-53-1X	97-452-18	97-453-15	-	97-16-99-3X	-	-
-119	97-19-53-1X	-	-	6.5-1-2691	97-16-99-3X	-	-
-120	97-19-53-1X	97-452-19	-	6-4-7691-1	97-16-100-3X	-	-
-121	97-19-53-1X	97-452-19	-	-	97-16-100-3X	-	-
-122	97-19-53-1X	97-452-19	-	6.3-4-1251-1	97-16-100-3X	-	-
-123	97-19-53-1X	97-452-19	-	6.3-4-1251-1	97-16-99-3X	-	-
-124	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-125	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-126	97-19-53-1X	-	-	-	97-16-100-3X	-	-
-127	97-19-53-1X	-	-	-	97-16-99-3X	-	-
-128	97-19-53-1X	-	-	6-4-7691-1	97-16-99-3X	-	-

SUPERSESSION LIST OF HEAVY DUTY 7 SPEEDS
T210-PS145-7 BILLS OF MATERIAL



1372A to PS145-7A				1372A to PS145-7A			
1372A	1372A	PS140-7A	PS145-7A	1372A	1372A	PS140-7A	PS145-7A
301271-1	301398-1	301444-1		301271-80	301398-80	301444-91	
301271-2	301398-2	301444-2		301271-81	301398-81	301444-77	
301271-3	301398-3	NONE		301271-82	301398-82	NONE	
301271-4	301398-4	NONE		301271-83	301398-83	NONE	
301271-5	301398-5	NONE		301271-84	301398-84	301444-96	
301271-6	301398-6	NONE		301271-85	301398-85	NONE	
301271-7	301398-7	310444-85		301271-86	301398-86	NONE	
301271-8	301398-8	NONE		301271-87	301398-87	NONE	
301271-9	301398-9	NONE		301271-88	301398-88	NONE	
301271-10	301398-10	NONE		301271-89	301398-89	NONE	
301271-11	301398-11	NONE		301271-90	301398-90	301444-10	301520-103
301271-12	301398-12	301444-3		301271-91	301398-91	301444-11	301520-104
301271-14	301398-14	NONE		301271-92	301398-92	NONE	
301271-16	301398-16	NONE		301271-93	301398-93	NONE	
301271-17	310398-17	NONE		301271-94	301398-94	NONE	
301271-18	301398-18	NONE		301271-95	301398-95	301444-12	
301271-19	301398-19	NONE		301271-96	301398-96	NONE	
301271-20	301398-20	301444-54		301271-97	301398-97	NONE	
301271-21	301398-21	NONE		301271-98	301398-98	NONE	
301271-22	301398-22	301444-4		301271-99	301398-99	NONE	
301271-23	301398-23	NONE		301271-100	301398-100	301444-80	
301271-24	301398-24	NONE		301271-101	301398-101	NONE	
301271-25	301398-25	NONE		301271-102	301398-102	NONE	
301271-26	301398-26	NONE		301271-103	301398-103	NONE	
301271-27	301398-27	NONE		301271-104	301398-104	NONE	
301271-28	301398-28	NONE		301271-105	301398-105	NONE	
301271-29	301398-29	NONE		301271-106	301398-106	NONE	
301271-30	301398-30	NONE		301271-107	301398-107	NONE	
301271-31	301398-31	NONE		301271-108	301398-108	NONE	
301271-33	301398-33	NONE		301271-109	301398-109	301444-13	
301271-38	301398-38	NONE		301271-110	301398-110	NONE	
301271-39	301398-39	NONE		301271-111	301398-111	301444-14	
301271-41	301398-41	NONE		301271-112	301398-112	NONE	
301271-42	301398-42	301444-75		301271-113	301398-113	NONE	
301271-43	301398-43	NONE		301271-114	301398-114	NONE	
301271-44	301398-44	NONE		301271-115	301398-115	NONE	
301271-46	301398-46	301444-5		301271-116	301398-116	301444-74	301520-118
301271-47	301398-47	NONE		301271-117	301398-117	301444-15	301520-126
301271-49	301398-49	NONE		301271-118	301398-118	NONE	
301271-51	301398-51	NONE		301271-119	301398-119	301444-70	
301271-54	301398-54	301444-6		301271-120	301398-120	301444-16	
301271-55	301398-55	NONE		301271-121	301398-121	NONE	
301271-56	301398-56	NONE		301271-122	301398-122	301444-19 *	
301271-58	301398-58	301444-78		301271-123	301398-123	301444-17	
301271-59	301398-59	301444-7	301520-101	301271-124	301398-124	NONE	
301271-69	301398-69	NONE		301271-125	301398-125	NONE	
301271-71	301398-71	301444-52		301271-126	301398-126	NONE	
301271-72	301398-72	301444-8	301520-102	301271-127	301398-127	NONE	
301271-73	301398-73	NONE		301271-128	301398-128	NONE	
301271-74	301398-74	NONE		301271-129	301398-129	301444-18 *	
301271-75	301398-75	NONE				301444-45 *	301520-111
301271-76	301398-76	301444-9				301444-46 *	301520-112
301271-77	301398-77	NONE		301271-130	301398-130	301444-19 *	
301271-78	301398-78	NONE				301444-47 **	
301271-79	301398-79	NONE				301444-48 ***	

* WITH 1710 END YOKE ** WITH 1760 END YOKE *** WITH 1810 END YOKE

**SUPERSESSION LIST OF HEAVY DUTY 7 SPEEDS
BILLS OF MATERIAL**
T210-PS145-7

1372A to PS145-7A				1372A to PS145-7A			
1372A	1372A	PS140-7A	PS145-7A	1372A	1372A	PS140-7A	PS145-7A
301271-131	301398-131	301444-20		-	'301398-182	301444-43	
301271-132	301398-132	301444-21		-	301398-183	NONE	
301271-133	301398-133	NONE		-	301398-184	301444-68	301520-105
301271-134	301398-134	NONE		-	301398-185	301444-51	
301271-135	301398-135	301444-22		-	301398-186	NONE	
301271-136	301398-136	301444-23		-	301398-187	301444-62	
301271-137	301398-137	NONE		-	301398-188	NONE	
301271-138	301398-138	NONE		-	301398-189	NONE	
301271-139	301398-139	301444-50		-	301398-190	301444-69	
301271-140	301398-140	NONE		-	301398-191	301444-38	301520-109
301271-141	301398-141	NONE		-	301398-192	301444-49	301520-113
301271-142	301398-142	NONE		-	301398-193	NONE	
301271-143	301398-143	301444-24		-	301398-194	301444-61	
301271-144	301398-144	NONE		-	301398-195	NONE	
301271-145	301398-145	NONE		-	-	301444-55	
301271-146	301398-146	NONE		-	-	301444-56	
301271-147	301398-147	NONE		-	-	301444-58	
301271-148	301398-148	NONE		-	-	301444-59	301520-116
301271-149	301398-149	NONE		-	-	601444-64	
301271-150	301398-150	301444-25		-	-	301444-67	301520-117
-	301398-151	301444-26		-	-	301444-71	
-	301398-152	NONE		-	-	301444-72	
-	301398-153	301444-27		-	-	301444-73	
-	301398-154	301444-28	301520-106	-	-	301444-79	301520-119
-	301398-155	301444-29		-	-	301444-81	301520-120
-	301398-156	301444-30		-	-	301444-82	
-	301398-157	301444-31		-	-	301444-83	
-	301398-158	NONE		-	-	301444-84	
-	301398-159	NONE		-	-	301444-86	
-	301398-160	301444-32	301520-107	-	-	301444-88	301520-121
-	301398-161	301444-33		-	-	301444-89	301520-122
-	301398-162	301444-34		-	-	301444-90	
-	301398-163	NONE		-	-	301444-92	
-	301398-164	301444-60	301520-115	-	-	301444-93	301520-123
-	301398-165	301444-35		-	-		
-	301398-166	NONE		-	-	301444-63	301520-116
-	301398-167	NONE		-	-	301444-64	
-	301398-168	NONE		-	-	301444-65	
-	301398-169	301444-36	301520-108	-	-	301444-66	
-	301398-170	301444-37		-	-	NONE	301520-110
-	301398-171	NONE		-	-	NONE	301520-124
-	301398-172	NONE					
-	301398-173	301444-39					
-	301398-174	301444-40	301520-125				
-	301398-175	301444-53	301520-127				
-	301398-176	301444-41					
-	301398-177	NONE					
-	301398-178	NONE					
-	301398-179	NONE					
-	301398-180	301444-57					
-	NONE	301444-42	301520-114				

Models PS110-7A/7B & PS145-7A
SUPERSESSION LIST OF HEAVY DUTY 7 SPEEDS

T210-PS145-7

BILLS OF MATERIAL



1372B to PS125-7B				1372B to PS125-7B			
1372B	1372B	PS125-7B	PS110-7B	1372B	1372B	PS125-7B	PS110-7B
301325-1	301405-1	301445-1		-	301405-35	301445-26	
301325-2	301405-2	301445-2		-	301405-36	NONE	
301325-3	301405-3	301445-3	301518-1	-	301405-37	301445-19	
301325-4	301405-4	301445-4		-	301405-38	NONE	
301325-5	301405-5	NONE		-	301405-39	NONE	
301325-6	301405-6	NONE		-	301405-40	301445-20	
301325-7	301405-7	301445-5		-	301405-41	NONE	
301325-8	301405-8	NONE		-	301405-42	NONE	
301325-9	301405-9	301445-6		-	301405-43	NONE	
301325-10	301405-10	301445-7	301518-2	-	301405-44	301445-21	
301325-11	301405-11	NONE		-	301405-45	NONE	
301325-12	301405-12	301445-8		-	301405-46	NONE	
301325-13	301405-13	301445-9	301518-3	-	301405-47	NONE	
301325-14	301405-14	NONE		-	301405-49	301445-29	
301325-15	301405-15	301445-10		-	-	301445-22	
301325-16	301405-16	NONE		-	-	301445-23	
301325-17	301405-17	NONE		-	-	301445-25	
301325-18	301405-18	NONE		-	-	301445-30	301518-7
301325-19	301405-19	NONE		-	-	301445-31	301518-8
301325-20	301405-20	301445-11	301518-4	-	-	301445-32	
301325-21	301405-21	301445-12		-	-	301445-33	
301325-22	301405-22	NONE		-	-	301445-34	
301325-23	301405-23	301445-13		-	-	301445-35	
301325-24	301405-24	NONE		-	-	301445-36	301518-5
301325-25	301405-25	301445-14		-	-	301445-37	301518-9
301325-26	301405-26	NONE		-	-	301445-38	
301325-27	301405-27	NONE		-	-	301445-39	
-	301405-28	301445-27		-	-	301445-40	301518-10
-	301405-29	301445-15		-	-	301445-41	301518-11
-	301405-30	301445-24		-	-	301445-42	
-	301405-31	301445-16		-	-	301445-43	301518-12
-	301405-32	301445-17		-	-	-	301518-13
-	301405-33	NONE		-	-	-	301518-14
-	301405-34	301445-18	301518-6	-	-	-	301518-15



Models PS110-7A/7B & PS145-7A
SUPERSESSION LIST OF HEAVY DUTY 7 SPEEDS
BILLS OF MATERIAL

T210-PS145-7

9072A to PS110-7A			9072A to PS110-7A		
9072A	PS97-7A	PS110-7A	9072A	PS97-7A	PS110-7A
301321-1	301446-1	301519-51	301321-26	301446-13	
301321-2	NONE		301321-27	NONE	
301321-3	NONE		301321-28	NONE	
301321-4	NONE		301321-29	301446-14	
301321-5	301446-2	301519-52	301321-30	301446-15	
301321-6	301446-3		301321-31	301446-23	
301321-7	301446-4	301519-53	301321-32	301446-19	
301321-8	NONE		301321-33	NONE	
301321-9	NONE		301321-34	NONE	
301321-10	301446-5	301519-54	-	301446-17	301519-56
301321-11	301446-24		-	301446-18	
301321-12	NONE		-	301446-21	
301321-13	NONE		-	301446-16	
301321-14	301446-6		-	301446-22	301519-57
301321-15	301446-7		-	301446-25	
301321-16	301446-20		-	301446-27	
301321-17	NONE		-	301446-28	
301321-18	301446-8		-	301446-29	
301321-19	NONE		-	301446-30	301519-58
301321-20	NONE		-	301446-31	
301321-21	301446-9		-	301446-32	301519-60
301321-22	301446-10		-	-	301519-59
301321-23	301446-11		-	-	301519-61
301321-24	301446-12		-	-	301519-62



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