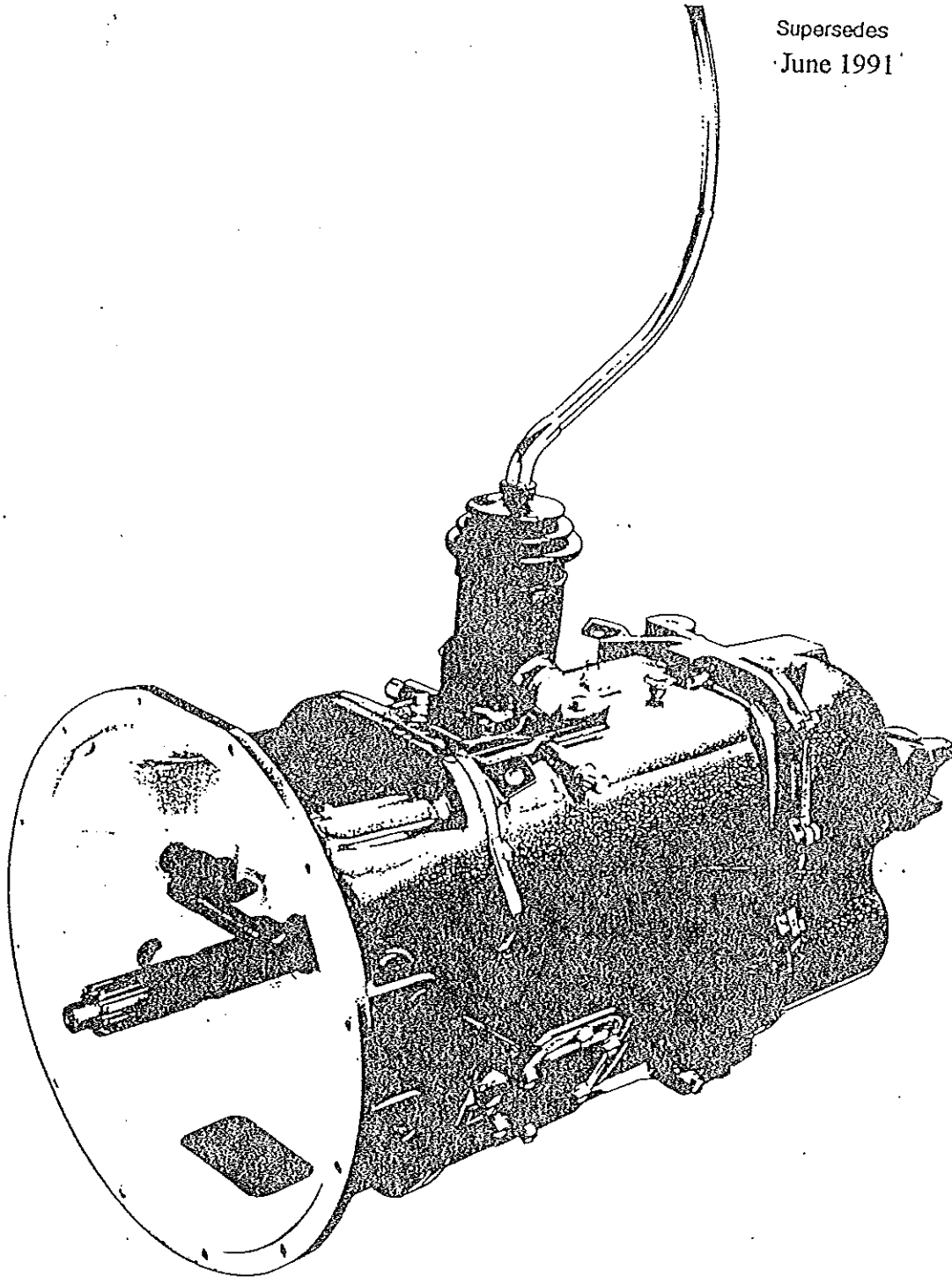


MODEL ES52-7A/ESO65-7A

September 2000

Supersedes
June 1991



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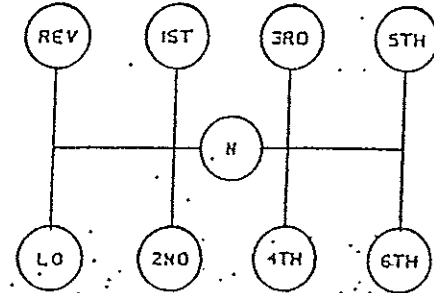
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MODEL ES52-7A/ESO65-7A

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RATIO TABLE

Model	ES52-7A	ESO65-7A
	Spicer Base B/M #	Spicer Base B/M #
	301451 Old Style 301635 New Style	301452 Old Style 301636 New Style
Speeds		
LO	10.09	7.48
1st	6.94	5.14
2nd	4.10	3.04
3rd	2.56	1.90
4th	1.81	1.34
5th	1.35	1.00
6th	1.00	.74
Rev	8.99	6.66



SHIFT PATTERN

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

Identification:

The Name Plate NP-202 affixed
to the Lower Rear Right Side
of the Transmission Case is
Stamped with the Information
shown below.

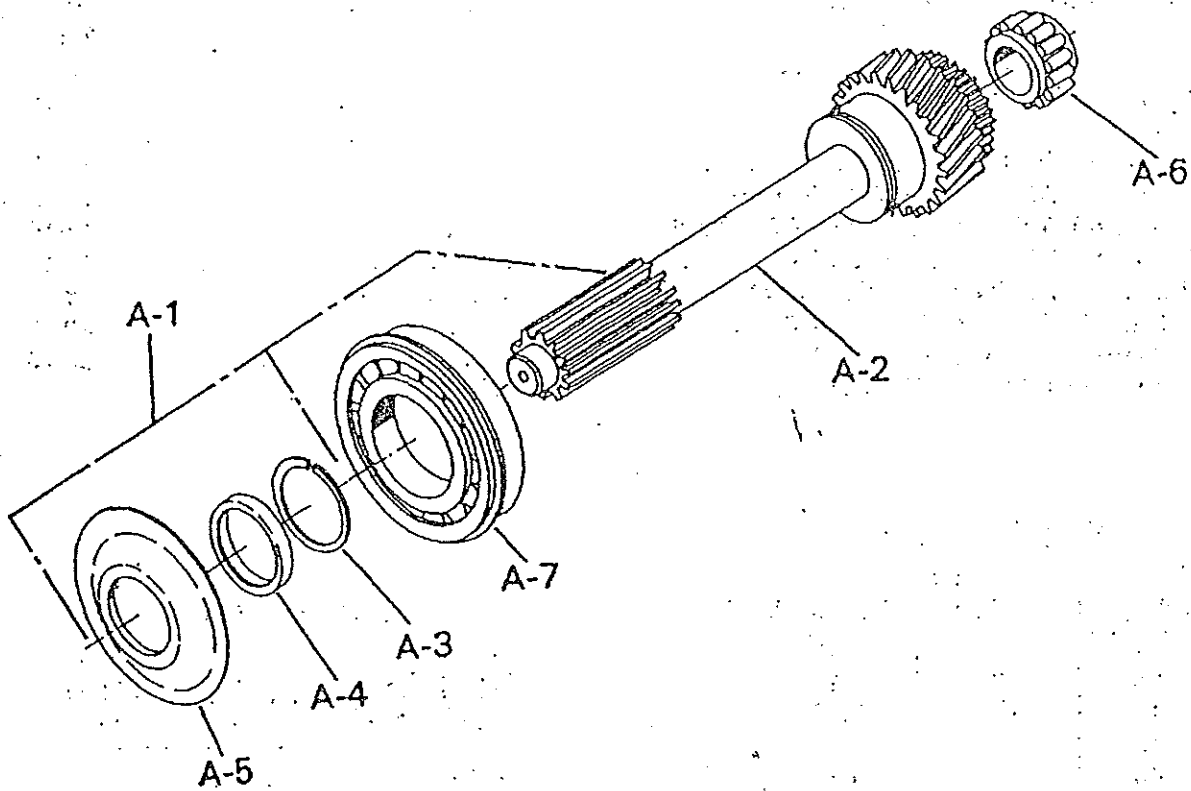
In requesting more information
on the Transmission, please
furnish the information shown.

Serial No.

B/M Model

Navistar No.

ES52-7A/ESO65-7A
GEARS and RELATED PARTS



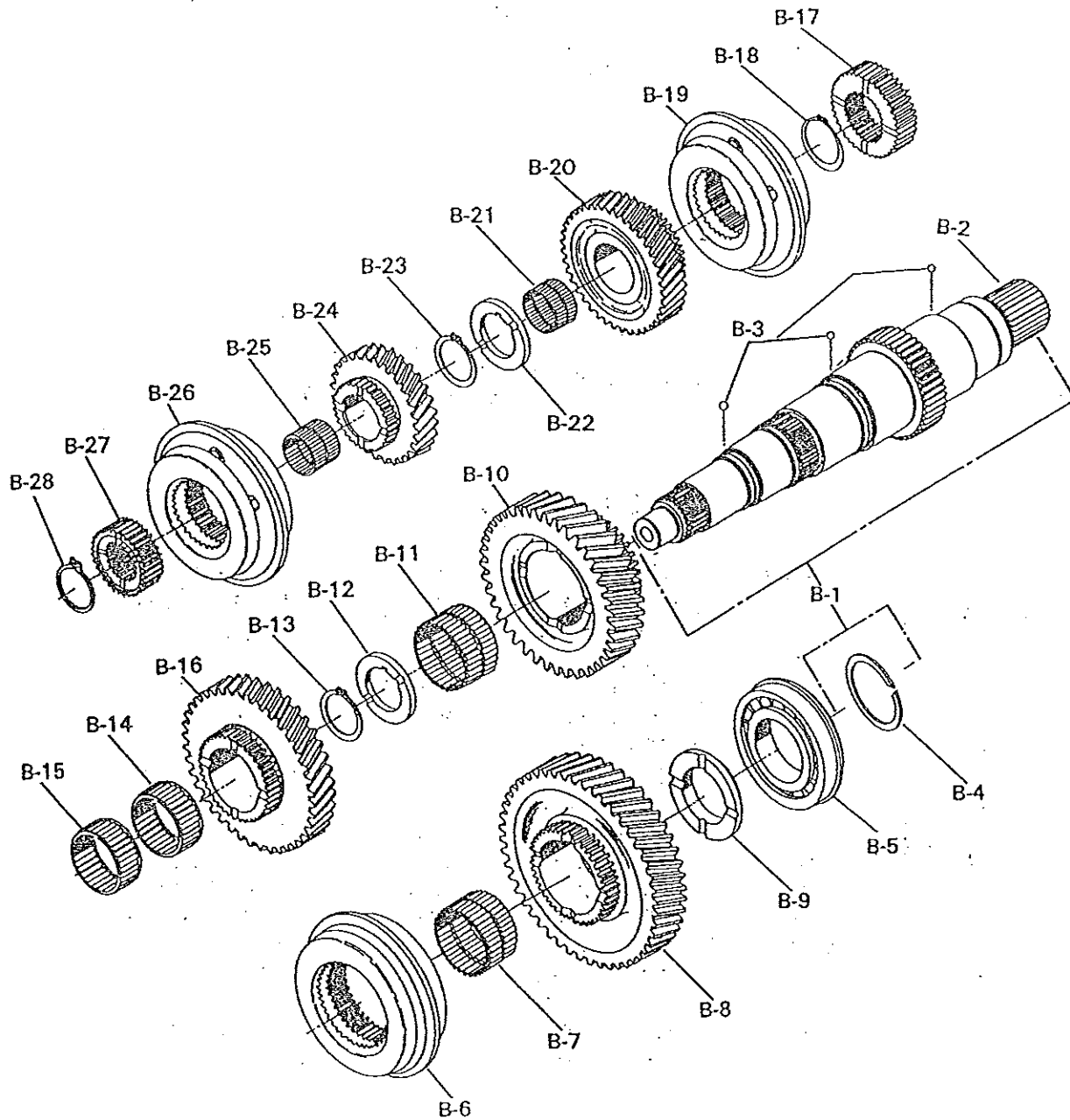


A circular diagram representing a cell. In the center is a large, dark, circular nucleus. Surrounding the nucleus is a lighter, granular cytoplasm. The cell is enclosed by a thin, dark outer boundary. The overall appearance is that of a biological illustration of a cell.

*** IMPORTANT

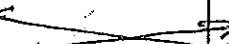
N.S.S. - Not Sold Separately

ES52-7A/ESO65-7A
GEARS and RELATED PARTS



EASY SHIFT 7 SPEED MODELS

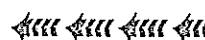
GEARS and RELATED PARTS

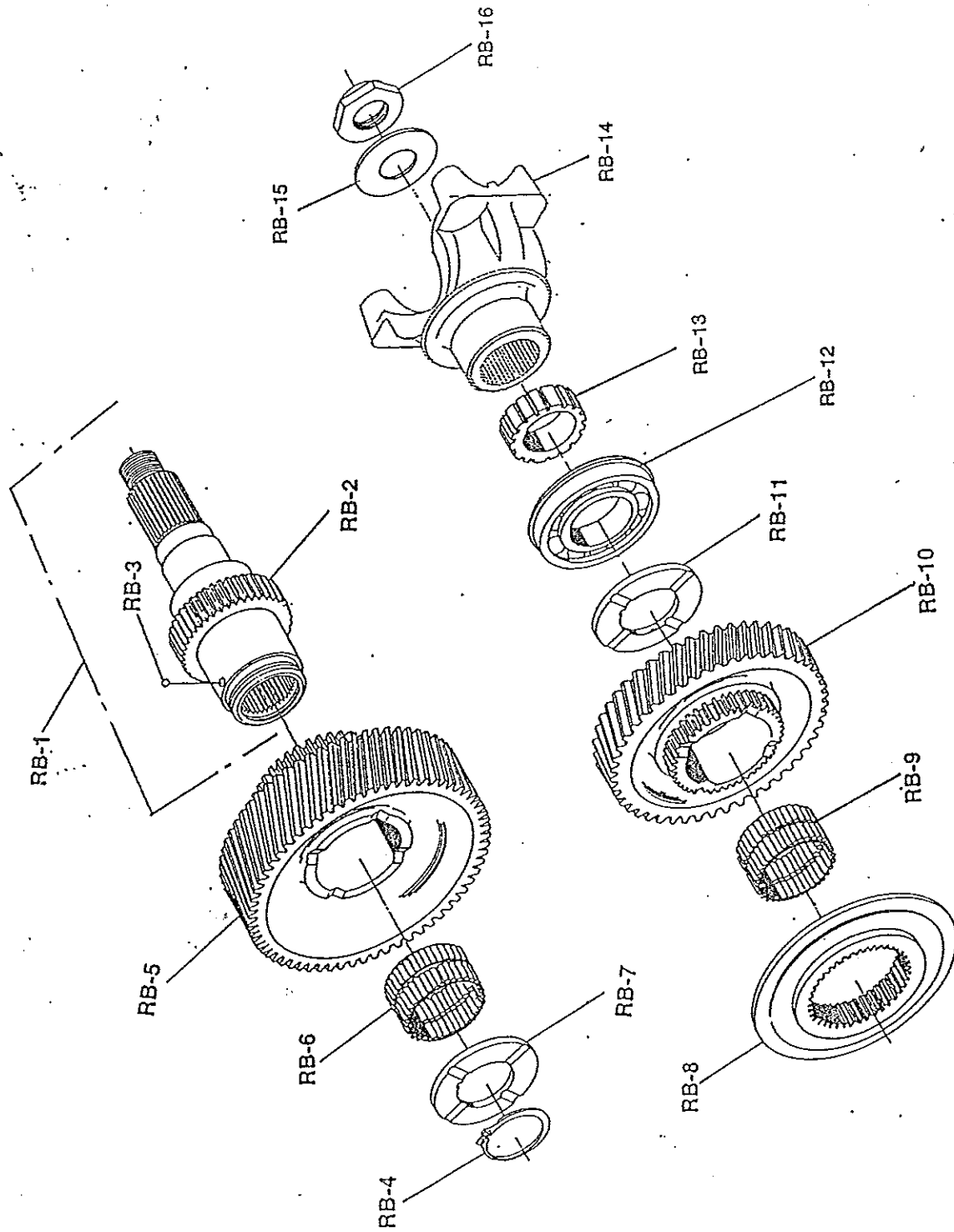
Ref. No.	Part No.	Description	Qty.	Navistar Part No.
		Mainshaft Group - Front		
B-1	101-362-7-1X	Mainshaft Sub-Assembly (includes B-2 thru B-4)*	1	2500736C91
or	101-362-6-1X	Mainshaft Sub-Assembly (includes B-2 thru B-4)**	1	1681304C92
B-2	N.S.S.	Mainshaft - Front (part marked as 101-362-7* or 101-362-6**)	1	N.S.S.
B-3	500566-5	Ball - Mainshaft Thrust Washer	3	17006R1 *
B-4	82-381-2	Snap Ring - Countershaft Drive Gear	1	110250R1
B-5	101-482-1	Bearing - Intermediate Shaft	1	1699550C91
B-6	101-464-3X	Synchronizer - 2nd & 3rd Mainshaft*	1	2500246C91
or	313777X	Synchronizer - 2nd & 3rd Mainshaft**	1	1677671C92
B-7	550991	Bearing - 2nd Speed Needle	1	1654854C1
B-8	101-8-27	Gear - 2nd Speed Mainshaft (35T)* ⁴⁴	1	2500224C1
or	101-8-18	Gear - 2nd Speed Mainshaft (35T)** ⁴⁴	1	1677685C1
B-9	101-47-6	Washer - 2nd Speed Thrust	1	1681340C2
B-10	101-8-29	Gear - 3rd Speed Mainshaft (29T)* ³⁰	1	2500226C1
or	101-8-20	Gear - 3rd Speed Mainshaft (29T)** ³⁰	1	1677686C1
B-11	550991	Bearing - 3rd Speed Needle	1	1654854C1
B-12	101-47-2	Washer - 3rd & 4th Speed Thrust	1	1681339C1
B-13	101-381-2	Snap Ring - 3rd & 4th Speed Thrust Washer	1	1681324C1
B-14	551005	Bearing - 4th Speed Needle	1	1681314C1
B-15	551006	Bearing - 4th Speed Needle	1	1665620C1 *
B-16	101-8-25	Gear - 4th Speed Mainshaft (30T)*	1	2500220C1
or	101-8-8	Gear - 4th Speed Mainshaft (30T)**	1	1677688C1
B-17	101-466-4	Gear - 4th & 5th Mainshaft Clutch**	1	1654838C2
B-18	40-381-4	Snap Ring - 4th & 5th Clutch Gear	1	644771R1 *
B-19	101-464-2X	Synchronizer - 4th & 5th Mainshaft*	1	2500245C91
or	313776X	Synchronizer - 4th & 5th Mainshaft**	1	1677672C92
B-20	101-8-24	Gear - 5th Speed Mainshaft (30T)*	1	2500218C1
or	101-8-6	Gear - 5th Speed Mainshaft (30T)**	1	1677678C1
B-21	551004	Bearing - 5th Speed Needle	2	1681313C1
B-22	101-47-1	Washer - 5th & 6th Speed Thrust	1	1681341C1
B-23	101-381-1	Snap Ring - 5th & 6th Speed Thrust Washer	1	1681325C1
B-24	101-8-23	Gear - 6th Speed Mainshaft ES52-7B (25T)*	1	2500216C1
or	101-8-2	Gear - 6th Speed Mainshaft ES52-7B (25T)**	1	1677677C1
or	101-8-22	Gear - 6th Speed Mainshaft ESO66-7B (22T)* 	1	1691637C1
or	101-8-21	Gear - 6th Speed Mainshaft ESO66-7B (22T)** 	1	2500215C1
B-25	551003	Bearing - 6th Speed Needle	2	1681312C1
B-26	101-464-1X	Synchronizer - 5th & 6th Mainshaft* *	1	1699809C91
or	313775X	Synchronizer - 5th & 6th Mainshaft**	1	1693052C91
B-27	101-466-2	Gear - 5th & 6th Mainshaft Clutch*	1	1677681C1
B-28	40-381-1	Snap Ring - 5th & 6th Clutch Gear	1	596407C1

*-Back-Tapered Clutching Teeth Version (After Serial No. J960601000)

** - Straight Clutching Teeth Version (Before Serial No. J960601000)

N.S.S. - Not Sold Separately

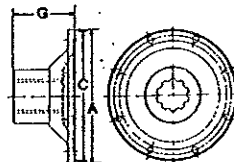
 **IMPORTANT**



Ref. No.	Part No.	Description	Qty.	Navistar Part No.
		Mainshaft Group - Rear		
RB-1	101-362-5-1X	Mainshaft Sub-assy. (incl. RB-2, RB-3, 101-381-4 & 101-47-5)	1	1681303C92
RB-2	N.S.S.	Mainshaft - Rear (Part marked as 101-362-5)	1	N.S.S.
RB-3	500566-5	Ball - Thrust Washer	1	17006R1 *
RB-4	101-381-2	Ring - Snap 1 st Speed Thrust Washer (BSSN - J910619001)	1	1681324C1
Or	101-381-4	Ring - Snap 1 st Speed Thrust Washer (ASSN - J910619001)	1	324738R1 *
RB-5	101-8-14	Gear - 1 st Speed Mainshaft Gear (64T)	1	1677684C1
Or	104-8-1	Gear - 1 st Speed Mainshaft Gear (64T)	1	2504242C1
RB-6	550991	Bearing - 1 st Speed Needle	1	1654854C1
RB-7	101-47-2	Washer - 1 st Speed Washer (BSSN J910619001)	1	1681339C1
Or	101-47-5	Washer - 1 st Speed Thrust (ASSN - J910619001)	1	1691046C1
RB-8	101-465-7	Collar - 1 st Speed and Reverse Clutch	1	1677673C1
RB-9	550991	Bearing - Reverse Mainshaft Needle	1	1654854C1
RB-10	101-8-16	Gear - Reverse Mainshaft - Rear (57T)	1	1677679C1
Or	104-8-2	Gear - Reverse Mainshaft - Rear (57T)	1	2504243C1
RB-11	101-47-4	Washer - Thrust Reverse Gear	1	1681338C1
RB-12	550989	Bearing - Mainshaft Rear	1	1654853C91
RB-13	53-452-5	Gear - Speedometer Signal (16 Grooves)	1	1669586C1
RB-14	See Table	Companion Flange or Yoke (See Table Below)	1	-
RB-15	53-205-1	Washer - Mainshaft Nut - Rear	1	591220C1
RB-16	501200	Nut - Mainshaft - Rear (1.250" - 18)	1	591219C1

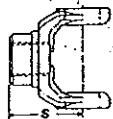
* Navistar may purchase from Vendor other than Dana.

N.S.S. - Not Sold Separately BSSN - Before Starting Serial No. ASSN - After Starting Serial No.

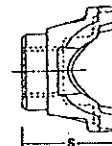


Companion Flanges

Joint Series	A Flange Diameter	Part No. Companion Flange Assembly	Part No. Companion Flange	G End of Hub to Flange Face Length	C Pilot Diameter F-Female M-Male	Brake Size
1480/1550	Rectangular	—	53-106-2	2 7/8"	F-3 3/4"	—



FULL ROUND

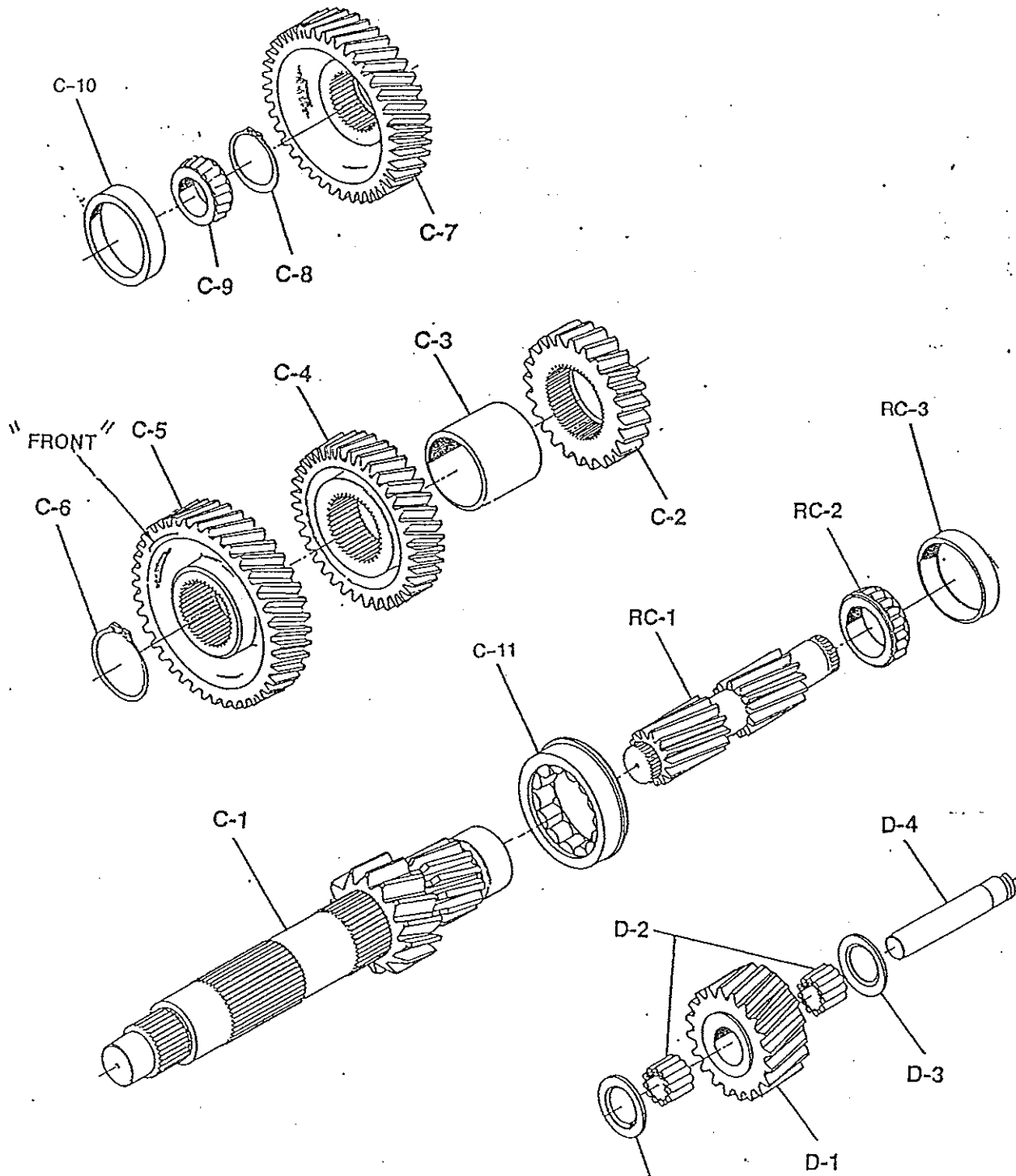


U-BOLT-BRG. STRAP-HALF ROUND
End Yokes

Series	Yoke Style	End Yoke Part Number	S End of Hub to Center Line Length	Momentary Joint Angle	Brake Size
1480	U-Bolt	3-4-8781	4 11/64"	22 1/2°	—
1550	U-Bolt	4-4-4491	4 1/64"	21 1/2°	—
1550	Brg. Strap*	4-4-4491-1	4 1/64"	21 1/2°	—
1550	Half Rnd.	(A) 4-4-6111-1X	7 1/32"	22°	12 x 4
1590	Half Rnd.	4-9-4-81-1	4 3/8"	25°	—
1610	Full Rnd.	5-4-6321	4"	19°	—
1610	Half Rnd.	5-4-6321-1	4"	19°	—
1610	Half Rnd.	(A) 5-4-7611-1X	7 9/16"	22°	12 x 4
1710	Full Rnd.	6-4-7301	5 1/4"	33 1/2°	—
1710	Half Rnd.	6-4-7301-1	5 1/4"	33 1/2°	—

(A) Assembly Includes Brake Drum

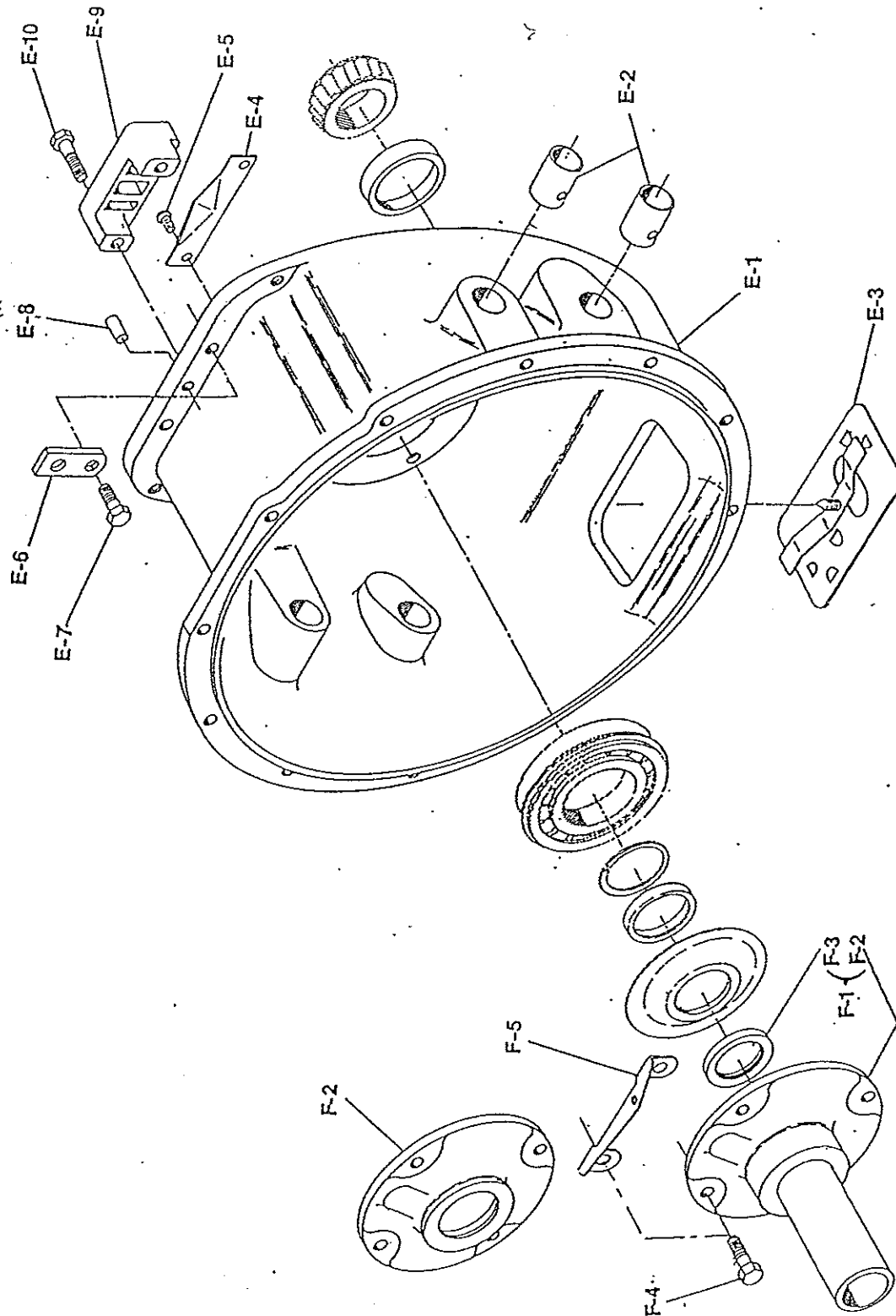
*With Tapped Holes



D-3 WASHERS REMOVED 05/06/92

Ref. No.	Part No.	Description	Qty.	Navistar Part No.
		Countershaft Group - Front		
C-1	101-30-6-1X	Countershaft - Front (15T/13T)	1	1681302C91
C-2	101-196-8	Gear - 4th Speed Countershaft - Front (24T)	1	1677687C1
C-3	101-37-1	Spacer - 4th and 5th Countershaft - Front	1	1681328C1
C-4	101-196-6	Gear - 5th Speed Countershaft - Front (34T)	1	1677690C1
C-5	101-196-2	Gear - 6th Speed Countershaft - Front (38T) ES52-7A	1	1677691C1
Or	101-196-9	Gear - 6th Speed Countershaft - Front (45T) ESO65-7A	1	1681389C1
C-6	27-381-5	Ring - Snap 6th Speed Countershaft - Front	1	684645R1
C-7	101-1-5	Gear - Head End Drive Countershaft - Front (41T) ES52-7A	1	1693557C1
Or	101-1-4	Gear - Head End Drive Countershaft - Front (38T) ESO65-7A	1	1681387C1
C-8	40-381-3	Ring - Snap Countershaft Head End Gear	1	287049R1 *
C-9	550868	Bearing - Cone Countershaft - Front	1	61063C91 *
C-10	550978	Bearing Cup - Countershaft Front	1	ST978 *
C-11	551007	Bearing - Intermediate Countershaft Front	1	1681310C91
		Countershaft Group - Rear		
RC-1	101-30-4	Countershaft - Rear (with PTO Drive) (13T/13T)	1	1677674C1
Or	104-30-3	Countershaft - Rear (with PTO Drive) (13T/13T)	1	2504239C1
RC-2	550868	Bearing - Cone Countershaft - Rear	1	61063C91 *
RC-3	550978	Bearing - Cup Countershaft - Rear	1	ST978 *
		Reverse Idler Group		
D-1	101-5-2	Gear - Reverse Idler (31T)	1	1677683C1
Or	104-5-1	Gear - Reverse Idler (31T)	1	2504241C1
D-2	550886	Bearing - Reverse Idler	2	321981R1 *
D-3	974-W	Washer - Thrust Reverse Idler (WASHERS REMOVED 05/06/92)	2	171053R1
D-4	63-60-1	Shaft - Reverse Idler	1	478921C1

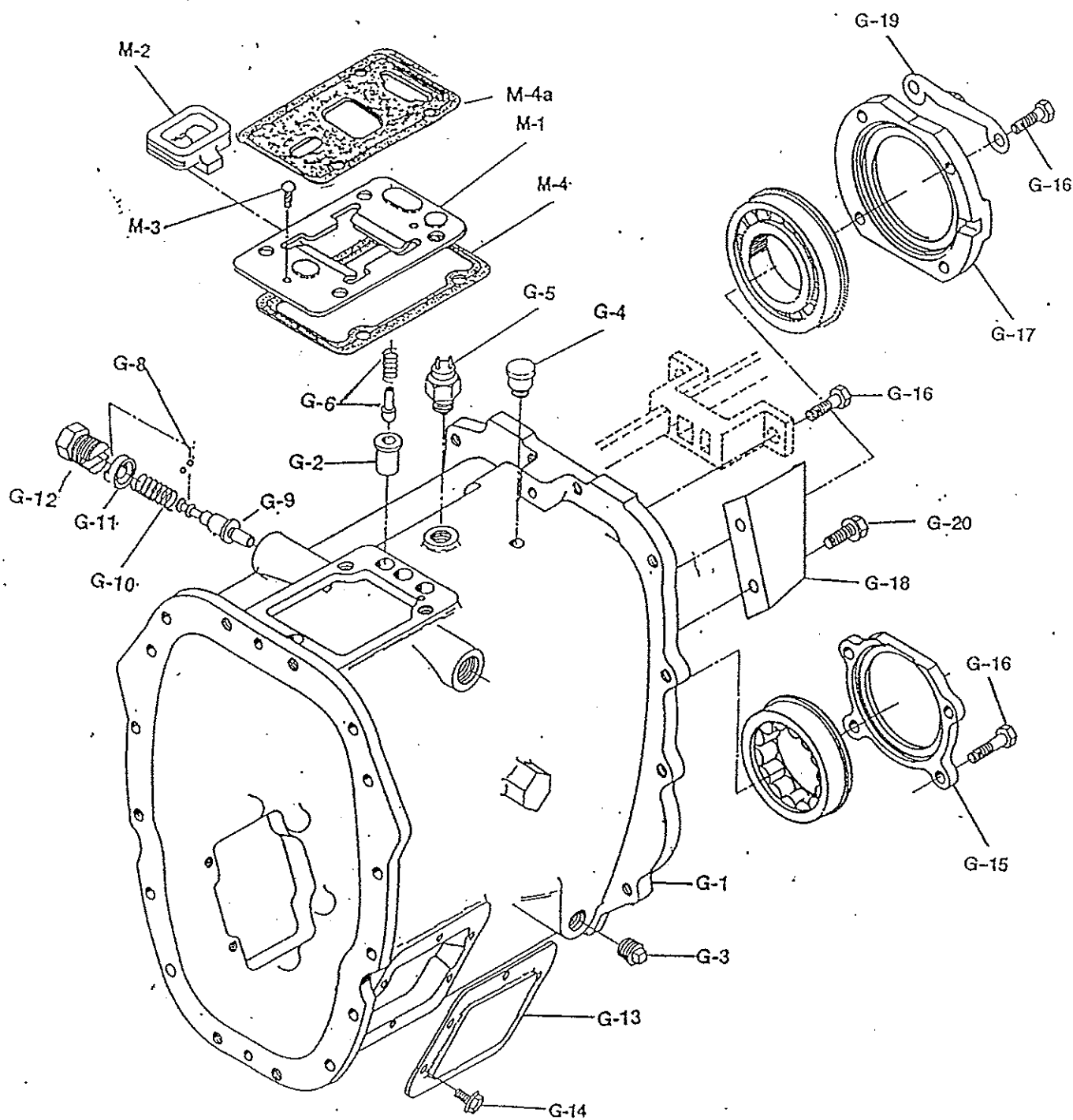
* Navistar may purchase from Vendor other than Dana.



Ref. No.	Part No.	Description	Qty.	Navistar Part No.
		Clutch Housing Group		
	101-518-7-2X	Clutch Housing Assy. (Includes E-1 thru E-5)	1	1681342C92
E-1	N.S.S.	Clutch Housing (C101-518-1)	1	N.S.S.
E-2	128C-20	Bushing - Clutch Release Shaft	4	973582R1
E-3	46-96-2-1X	Hand Hole Cover	1	973583R2
E-4	40-468-1	Oil Trough	1	1654885C1
E-5	545141	Drive Pin	2	1681386C1
E-6	330969-4	Lift Hook	1	-
E-7	545002-4	Screw - Clutch Housing (.375" - 16 x 1.250")	16	458371C1
E-8	545086	Dowel Pin - Clutch Housing to Front Case	2	1681317C1
E-9	101-477-1	Support - Shift Bar - Front	1	1681330C1
E-10	545002-9	Screw - Shift Bar Support - Front (.375" - 16 x 2.250")	2	27346R1 *
		Drive Gear Bearing Cap Group		
F-1	See Tab Bills	Cap and Seal Assy. - Drive Gear (includes F-2 thru F-3)	1	-
	101-19-2-1X	Cap and Seal Assy. - (Flat Cap) (C101-19-1)	1	1681344C91
	101-19-6-1X	Cap and Seal Assy. - (Stem Cap) (C101-19-5)	1	1681343C91
F-2	N.S.S.	Cap - Drive Gear	1	N.S.S.
F-3	60-463-10-1X	Oil Seal (includes installation sleeves)	1	424469C92
F-4	545002	Screw - Drive Gear Bearing Cap (.375" - 16 x 1.00")	4	26310R1
F-5	101-411-1	Bracket - Clutch Return Spring	1	1681587C1

* Navistar may purchase from Vendor other than Dana.

N.S.S. - Not Sold Separately



Ref. No.	Part No.	Description	Qty.	Navistar Part No.
		Case Group		
	101-15-6-1X	Case Assembly - Front (Includes G-1 thru G-4 & 330800)	1	1681346C91
G-1	N.S.S.	Case - Front (C101-15-1)	1	N.S.S.
N.S.	NP-96	Name Plate	1	-
N.S.	NP-196	Patent Plate	1	-
N.S.	252-SP	Pin - Name Plate	4	3247552R1
N.S.	330934	Magnet - Ceramic (located inside rear of Case)	2	321954C1 *
N.S.	545123	Plug - Filler/Drain - Magnetic (1.062" - 12 UN-2A) (Located lower left side near Rear Face)	2	1669319C1
N.S.	545086	Pin-Dowel(main case to clutch housing & main case to rear case)	4	16813117C1
G-2	40-487-1	Insert - Poppet Spring	4	596398C1
G-3	201-39-1	Plug - Temperature Indicator Hole	1	318724C1 *
G-4	312268	Breather	1	461452C1
N.S.	330800	Plug - Brake Mount Hole (.375" - 16 x .750")	2	71769C1
G-5	313538	Switch - Back-up Light	1	1646970C1
G-6	101-438-9-2X	Plunger-Assembly(includes 4 springs and 4 poppets)	1	1699818C91
G-8	500566-7	Ball - Steel (.250" dia.) Plunger 6th, 7th Crossgate	4	17008R1 *
G-9	101-438-7	Plunger - 6th and 7th Crossgate	2	1681322C1
G-10	101-72-6-1X	Spring - Low/Rev. Plunger (orange)(located right side as shown)	1	1685409C91
and	101-72-5	Spring - Plunger 6th & 7th Crossgate (located left side)	1	1681329C1
G-11	101-135-1	Pusher - Plunger Spring 6th, 7th Crossgate	2	1681355C1
G-12	38P-4	Plug - 1st, Rev./6th, 7th Crossgate Plunger	2	1681321C1
G-13	50-267-2	Cover - PTO Aperature (6 hole)	2	13156H
G-14	330800	Screw - PTO Aperature Cover (.375" - 16 x .750")	12	71769C1
N.S.	545056-3	Anaerobic Sealant (approx. 6 cc)	A/R	549917C2 *
	101-360-5-1X	Kit - Retainer Intermediate Countershaft Bearing	1	1697659C91
G-15	101-360-5	Plate - Retainer Intermediate Countershaft Bearing	2	1681318C1
G-16	545002	Screw - Retainer Plate Countershaft (.375" - 16 x 1.00")	2	26310R1
G-17	101-360-2	Plate - Retainer Intermediate Mainshaft Bearing	1	1681320C1
G-18	101-468-3	Oil Trough - Mainshaft 1st Speed Gear	1	1681336C1
G-16	545002	Screw - Oil Trough & Intermediate Retainer (.375" - 16 x 1.00")	4	26310R1
G-16	545002	Screw - Intermed. Shift Bar Support (.375" - 16 x 1.00")	2	26310R1
G-19	101-468-4	Oil Trough - Mainshaft Bearing	1	1681337C1
G-20	330800	Screw - Oil Trough Mainshaft Bearing (.375" - 16 x .750")	2	71769C1
		Interlock Group		
M-1	101-200-1	Plate - Interlock Retainer	1	1681319C1
M-2	101-200-3	Interlock	1	1681354C1
M-3	545091	Screw - Drive Interlock Retainer	2	1681326C1
M-4	101-118-1	Gasket - Interlock Plate and Tower	1	1681046C1
M-4a	101-118-2	Gasket - Interlock Plate and Tower	1	1693474C1

* Navistar may purchase from Vendor other than Dana.

N.S. - Not Shown

N.S.S. - Not Sold Separately

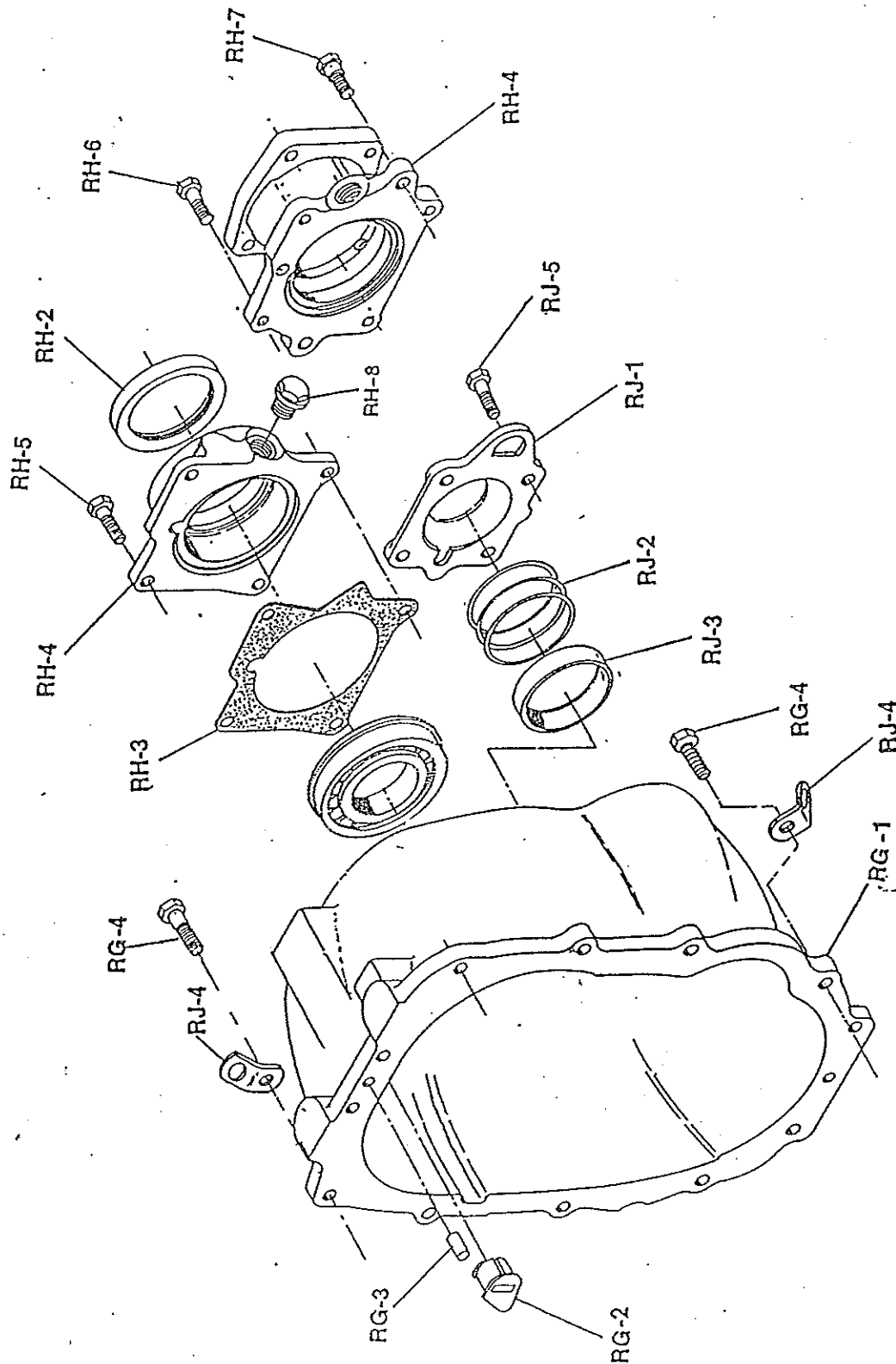
A/R - As Required

ES52-7A/ESO65-7A
CASE GROUP AND RELATED PARTS - REAR

SPICER®



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ES52-7A/ESO65-7A
CASE GROUP AND RELATED PARTS - REAR

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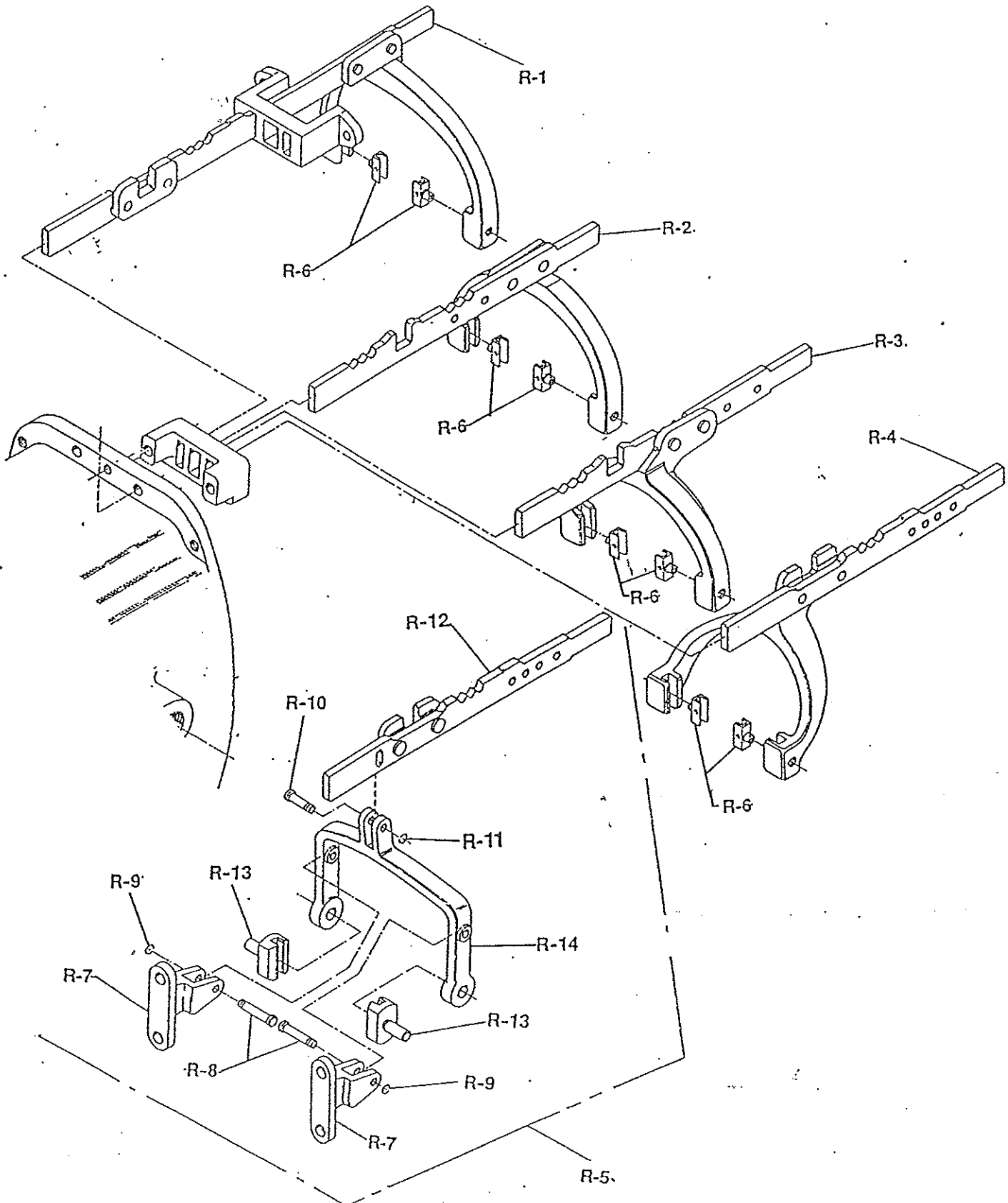
Ref. No.	Part No.	Description	Qty.	Navistar Part No.
		Case Group - Rear		
	101-15-5-1X	Case Assembly - Rear	1	1681348C91
RG-1	N.S.S.	Case - Rear (C101-15-3)	1	N.S.S.
RG-2	101-477-3	Shift Bar Support - Rear	1	1681331C1
N.S.	545012	Plug - Brake Mounting Holes In Rear Face	2	441366C1
N.S.	545089-1	Plug - Brake Mounting Lugs	2	1681349C1
RG-3	545086	Pin - Dowel - Rear Case to Front Case	2	1681317C1
RG-4	545002-4	Screw - Rear Case (.375"-16 x 1.250")	12	26311R11
		Mainshaft Rear Bearing Cap Group		
RH-1	See Tab Bills	Cap - Sub-assy. Mainshaft Rear Bearing	1	-
	40-19-41-2X	Cap - Sub-assy. M/S Rear Brg. (12 X 4 DCM Brake) (C40-19-4)	1	1669570C91
or	40-19-43-2X	Cap - Sub-assy. Mainshaft Rear Bearing (Air)(C40-19-46)	1	1669571C91
RH-2	63-463-1	Oil Seal	1	596372C1
RH-3	40-223-5	Gasket (for 12 x 4 DCM Brake Cap)	1	596375C2
or	40-223-4	Gasket (for Air Cap)	1	596376C2
RH-4	N.S.S.	Cap - Mainshaft Rear Bearing	1	N.S.S.
RH-5	545002-4	Screw - Mainshaft Rear Bearing Cap (Air Cap)	4	26311R11
or				
RH-6	545002-2	Screw-M/S Rear Bearing Cap (.375"-16x1.375)(Brake Cap)	4	458371C1
and				
RH-7	545134	Screw - M/S Rear Bearing Cap (.438"-14 x 1.250")(Brake Cap)	2	1681334C1
RH-8	545021	Plug - Electronic Speedo/Cruise (.750"-16 UNF-2A)	1	3290096R1
		Countershaft Rear Bearing Cap Group		
RJ-1	101-22-1	Cap - Countershaft Rear Bearing	1	2500703C1
RJ-2	49-228-1-1	Shim - Countershaft Rear Bearing (.005")	A/R	1654876C1
	49-228-1-2	Shim - Countershaft Rear Bearing (.010")	A/R	1654877C1
	49-228-1-3	Shim - Countershaft Rear Bearing (.015")	A/R	1654878C1
RJ-3	550978	Cup - Countershaft Rear Bearing	1	ST978 *
RJ-4	330564-1	Lift Hook	2	-
and	330969-4	Lift Hook	1	-
RJ-5	545002	Screw-Countershaft Rear Bearing Cap (.375"-16x1.000")	4	1696296C1

Note: Countershaft end play should be .001" - .008"

* Navistar may purchase from Vendor other than Dana.

N.S.S. - Not Sold Separately

MODEL ES52-7A/ESO65-7A
SHIFT BAR AND FORK ASSEMBLY



EASY SHIFT 7 SPEED MODELS

SHIFT BAR and FORK ASSEMBLY

Ref. No.	Part No.	Description	Qty.	Navistar Part No.
		Shift Bar and Fork Assembly		
R-1	313682-1X	Fork and Bar Assy. - Low & Reverse (direct and overdrive models)	1	1681305C91
R-2	101-69-3-1X	Fork and Bar Assy. - 1st and 2nd (direct and overdrive models)*	1	2500297C91
or	313681-1X	Fork and Bar Assy. - 1st and 2nd (direct and overdrive models)**	1	1681306C91
R-3	101-69-2-1X	Fork and Bar Assy. - 3rd and 4th (direct and overdrive models)*	1	2500296C91
or	313680-1X	Fork and Bar Assy. - 3rd and 4th (direct and overdrive models)**	1	1681307C91
R-4	101-69-1-1X	Fork and Bar Assy. - 5th and 6th (direct models only)*	1	2502052C1
or	313683-1X	Fork and Bar Assy. - 5th and 6th (direct models only)**	1	1681308C91
or				
R-5	101-69-11-1X	Fork and Bar Assy. - (overdrive models only) (includes R-7 thru R-14)*	1	2500295C91
or	313679-2X	Fork and Bar Assy. - (overdrive models only) (includes R-7 thru R-14)**	1	1681390C91
R-6	101-486-1-1X	Kit - Shift Fork Clip (includes (2) clips) (included in R-1, R-2, R-3, and R-4)	4	1681335C91
		Service Kits for Ref. No. R-5		
	101-411-2-1X	Kit - Shift Fork Mounting Bracket, Pin, and Snap Rings	1	1681392C91
R-7	N.S.S.	Mounting Bracket - Overdrive Shift Fork	2	N.S.S.
R-8	N.S.S.	Pin - Mounting Bracket	2	N.S.S.
R-9	N.S.S.	Snap Ring - Mounting Bracket Pin	2	N.S.S.
R-10	N.S.S.	Pin - Overdrive Shift Fork Mounting	1	N.S.S.
R-11	N.S.S.	Snap Ring - Mounting Pin	1	N.S.S.
	101-67-8-2X	Kit - Shift Bar, Pin, Snap Ring, and Plunger Assembly*	1	
R-12	N.S.S.	Shift Bar - Overdrive	1	N.S.S.
R-10	N.S.S.	Pin - Overdrive Shift Fork Mounting	1	N.S.S.
R-11	N.S.S.	Snap Ring - Mounting Pin	1	N.S.S.
N.S.	N.S.S.	Plunger Assembly (includes 1 spring and 1 poppet)	1	N.S.S.
	101-67-2-2X	Kit - Shift Bar, Pin, Snap Ring, and Plunger Assembly**	1	1681391C91
R-12	N.S.S.	Shift Bar - Overdrive	1	N.S.S.
R-10	N.S.S.	Pin - Overdrive Shift Fork Mounting	1	N.S.S.
R-11	N.S.S.	Snap Ring - Mounting Pin	1	N.S.S.
N.S.	N.S.S.	Plunger Assembly (includes 1 spring and 1 poppet)	1	N.S.S.
	101-66-4-1X	Kit - Shift Fork, Pins, Snap Rings, and Shoes	1	1681393C91
R-10	N.S.S.	Pin - Overdrive Shift Fork Mounting	1	N.S.S.
R-11	N.S.S.	Snap Ring - Mounting Pin	1	N.S.S.
R-8	N.S.S.	Pin - Mounting Bracket	2	N.S.S.
R-9	N.S.S.	Snap Ring - Mounting Bracket Pin	2	N.S.S.
R-13	101-486-4-1X	Kit - Shoe - Overdrive Shift Fork (includes (2) shoes)	1	1681395C91
R-14	N.S.S.	Shift Fork - Overdrive	1	N.S.S.
	201-438-6-1X	Kit - Fork Mounting Pin and Snap Ring	1	1669407C91
R-10	N.S.S.	Pin - Overdrive Shift Fork Mounting	1	N.S.S.
R-11	N.S.S.	Snap Ring - Mounting Pin	1	N.S.S.
	101-438-2-1X	Kit - Mounting Bracket Pins and Snap Rings	1	1681394C91
R-8	N.S.S.	Pin - Mounting Bracket	2	N.S.S.
R-9	N.S.S.	Snap Ring - Mounting Bracket Pin	2	N.S.S.

*-Back-Tapered Clutching Teeth Version (After Serial No. J960601000)

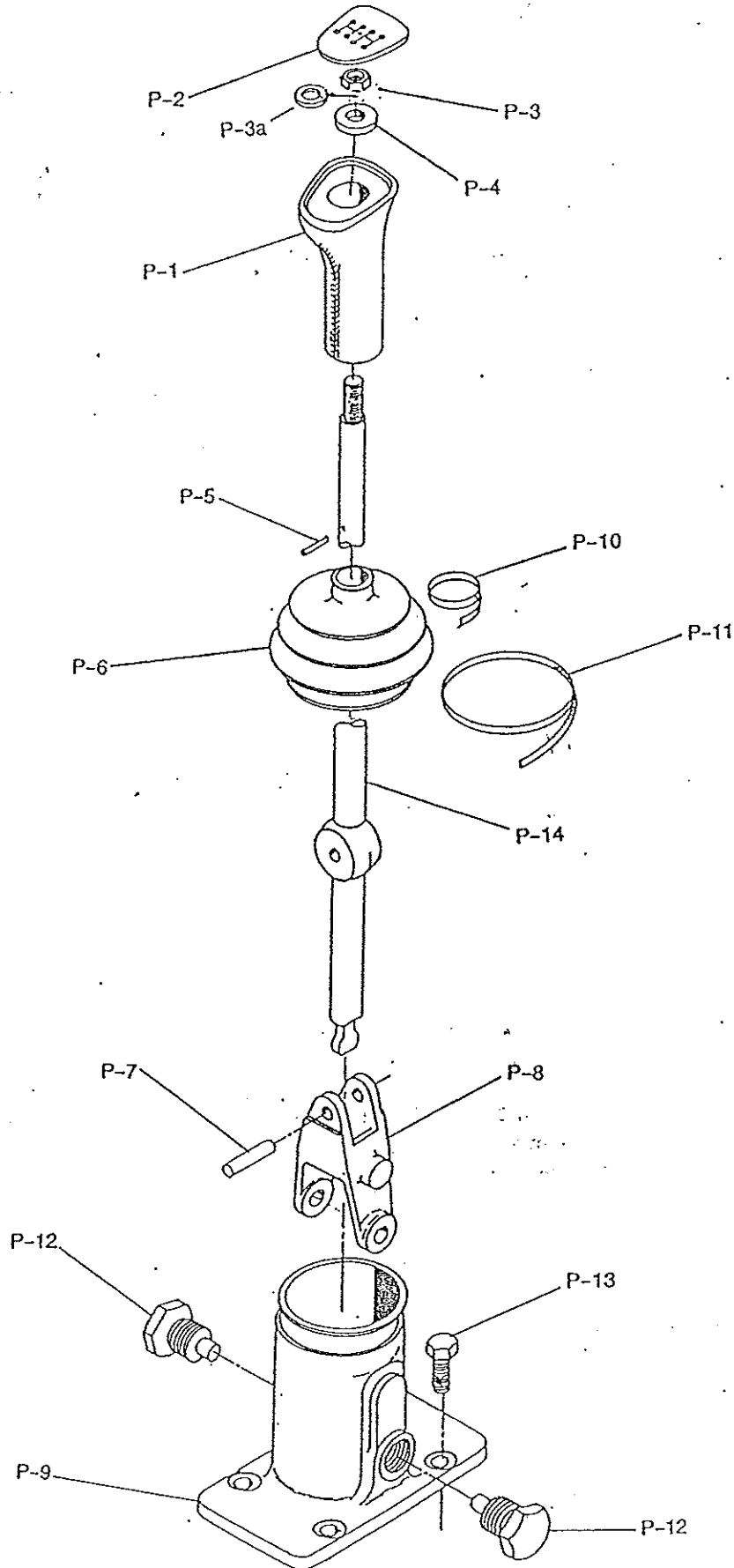
** - Straight Clutching Teeth Version (Before Serial No. J960601000)

N.S.S. - Not Sold Separately

*** IMPORTANT

ES52-7A/ESO65-7A
SHIFT LEVER AND TOWER ASSEMBLY - GIMBAL

SPICER®



Ref.	Part No.	Description	Qty.	Navistar Part No.
N.S.	See Chart Below	Shift Lever and Tower Assembly	1	See Chart Below
	313728-1X	Sub-Assy. - Shift Knob (Includes P-1 thru P-5)	1	1685431C91
P-1	N.S.S.	Handle - Shift Lever	1	N.S.S.
P-2	101-20-2	Insert - Shift Lever Handle	1	1682492C1
P-3	500370-5	Nut - Shift Knob Retaining	1	25526R1 *
P-3a	500357-13	Washer - Shift Lever Retaining (lock type)	1	103323
P-4	201-451-2	Washer - Shift Knob	1	
P-5	201-438-8	Pin - Shift Knob	1	19371R1 *
N.S.	101-17-2-10X	Sub-Assy. - Shift Tower (Includes P-6 thru P-13)	1	1681752C91
P-6	101-483-2	Boot - Shift Tower and Lever	1	1680583C1
P-7	53Q-20	Pin - Pivot (Gimbal)	1	1680556C1
P-8	48Q-60	Yoke - Shift (Gimbal)	1	1680557C1
P-9	101-17-2	Tower - Shift (Gimbal)	1	1680554C1
P-10	33Q-15-1	Tie Cable - Upper	1	289862C1 *
P-11	33Q-15-2	Tie Cable - Lower	1	289862C1 *
P-12	313591X	Kit - Trunion Screws (Includes (2) Trunion Screws)	1	1681588C1
P-13	545028	Screw - Shift Tower	4	26315R1
N.S.	201-483-4	Boot - Floorboard (Oval)	1	286655C4
N.S.	201-483-5	Boot - Floorboard (Rectangular)	1	291068C2
P-14	See Chart Below	Shift Lever	1	See Chart Below

SHIFT LEVER AND TOWER ASSEMBLIES													
LVR. & TOWER ASSY. (3) (INCLUDES P-1 THRU P-12 & P-14)		SHIFT LEVER (P-14)			NAVISTAR TRUCK MODEL								
SPICER #	NAVISTAR #	SPICER #	NAVISTAR #	LENGTH	2500	2600	3700	3800	4600	4700	4800	4900 4900 6X4	7100
(1) 101-17-2-2X	1680550C92	25Q-2580	1680542C1	24.4"						DT360	DT360		
(2) 101-17-2-3X	1680546C92	25Q-2581	1680538C1	29.0"	DT466	DT466							
(1) 101-17-2-4X	1680552C92	25Q-2582	1680544C1	23.4"							DT466	DT466	
(2) 101-17-2-5X	1680553C92	25Q-2584-4	1680545C1	31.4"									DT466
(2) 101-17-2-6X	1680548C92	25Q-2584	1680540C1	25.0"					7.3L				
(1) 101-17-2-7X	1680551C93	25Q-2584-1	1680543C1	24.2"				DT466 *				DT466 *	
(1) 101-17-2-8X	1680547C92	25Q-2584-2	1680539C1	23.4"			7.3L		7.3L				
(1) 101-17-2-9X	1680540C93	25Q-2584-3	1680541C1	24.2"				DT360 *		DT360 *			

* FLAT BACK COWL

(1) INCLUDES 201-483-4 FLOORBOARD BOOT (OVAL)

(2) INCLUDES 201-483-5 FLOORBOARD BOOT (RECTANGULAR)

(3) NAVISTAR DOES NOT SERVICE LEVER & TOWER ASSEMBLY.

PURCHASE (1) EACH:

313728-1X (1685431C91) SHIFT KNOB SUB-ASSY.

101-17-2-10X (1681752C91) SHIFT TOWER SUB-ASSY.

LEVER

FLOORBOARD BOOT

* Navistar may purchase from Vendor other than Dana.

N.S.S. - Not Sold Separately

N.S. - Not Shown

ES52-7A/ESO65-7A SERVICE PARTS OVERHAUL KITS

Part No.	Description	Qty.	Navistar Part No.
	Major Overhaul Kit		
101-400-2X	Major Overhaul Kit	1	2503559C91
313432-38X	Minor Overhaul Kit	1	1681353C91
313401-33X	Thrust Washer Kit	1	1681401C91
313429-25X	Repair Shifting Parts Kit	1	1681402C91
501200	Nut - Mainshaft Rear	1	591219C1
53-205-1	Washer - Nut Mainshaft Rear	1	591220C1
545132	Nut - Mainshaft Front	1	1681316C1
313432-38X	Minor Overhaul Kit (Included In Major Overhaul Kit)	1	1681353C91
551007	Bearing - Countershaft Intermediate Front	1	1681310C91
56-482-1	Bearing - Mainshaft Pocket	1	2504566C1
101-482-1	Bearing - Drive Gear/Mainshaft Intermediate	2	1699550C91
550989	Bearing - Mainshaft Rear	1	1654853C91
551003	Bearing - Mainshaft 6th Gear Needle	2	1681312C1
551004	Bearing - Mainshaft 5th Gear Needle	2	1681313C1
551005	Bearing - Mainshaft 4th Gear Needle	1	1681314C1
551006	Bearing - Mainshaft 4th Gear Needle	1	1665620C1 *
550886	Bearing - Reverse Idler Gear Roller Assy.	2	321981R1 *
550991	Bearing - Rev., 1st, 2nd, 3rd Mainshaft Needle	4	1654854C1
550868	Bearing - Taper Cone (Countershaft)	2	61063C91 *
550978	Bearing - Taper Cup (Countershaft)	2	ST978 *
60-463-10-1X	Seal - Oil Drive Gear Bearing Cap (Incl. Installation tools)	1	424469C92
63-463-1	Seal - Oil Mainshaft Rear Bearing Cap	1	596371C1
545077	#2 Moly Grease (packet)	1	-
101-486-1-1X	Clip - Shift Fork	4	1681335C91
101-486-4-1X	Shoe - Shift Fork (Overdrive)	1	1681395C91
545080-1	Adhesive for Mainshaft Nut (.5 cc vial)	1	-
312475-46X	Gasket Kit	1	1681352C91
313438-3X	Shim Kit - Countershaft Rear	1	1681403C91
313024-28X	Snap Ring Kit	1	1681404C91
313401-33X	Thrust Washer Kit (Included In Major Overhaul Kit)	1	1681401C91
974-W	Washer - Thrust Reverse Idler Gear	2	171053R1
101-47-4	Washer - Thrust Reverse Mainshaft Gear	1	1681338C1
101-47-5	Washer - Low Speed Thrust	1	1691046C1
101-47-6	Washer - Thrust 2nd Mainshaft Gear	1	1681340C1
101-47-1	Washer - Thrust 5th and 6th Mainshaft Gear	1	1681341C1
500566-5	Ball - Mainshaft Thrust Washer	3	17006R1 *
101-47-2	Washer 1st, 3rd & 4th Mainshaft Gear	2	1681339C1
2848	Bulletin	1	-

ES52-7A/ESO65-7A
SERVICE PARTS OVERHAUL KITS

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Part No.	Description	Qty.	Navistar Part No.
313429-25X	Repair Shifting Parts Kit (Included in Major Overhaul Kit)	1	1681402C91
101-438-9-2X	Kit - Poppet & Spring (includes 4 poppets & 4 springs)	1	1699818C91
500566-7	Ball - Plunger 6th and 7th Crossgate	4	17008R1
101-438-7	Plunger - 6th and 7th Crossgate	2	1681322C1
101-72-5	Spring - Plunger 6th and 7th Crossgate	1	1681329C1
101-72-6-1X	Spring - Plunger Low/Rev. (orange)	1	1685409C91
101-135-1	Pusher - Plunger Spring 6th and 7th Crossgate	2	1681355C1
545091	Screw - Drive Interlock Retainer	2	1681326C1
312475-46X	Gasket Kit (Included in Major and Minor Overhaul Kit)	1	1681352C91
101-118-2	Gasket - Interlock Plate to Tower Assembly	1	1693474C1
101-118-1	Gasket - Case to Interlock Plate/Tower Assy.	2	1681046C1
40-223-5	Gasket - Mainshaft Rear Bearing Cap (DCM Brake Cap)	1	596375C2
40-223-4	Gasket - Mainshaft Rear Bearing Cap (Air Brake Cap)	1	596376C2
545056-10	Anaerobic Sealant - 24 cc Tube	1	-
2824	Bulletin - Anaerobic Sealant Application	1	-
313438-3X	Shim Kit (Included in Major and Minor Overhaul Kit)	1	1681403C91
49-228-1-1	Shim - Countershaft Rear Bearing (.005")	2	1654876C1
49-228-1-2	Shim - Countershaft Rear Bearing (.010")	2	1654877C1
49-228-1-3	Shim - Countershaft Rear Bearing (.015")	2	1654878C1
2793	Bulletin - Countershaft Shim Instructions	1	-
313024-28X	Snap Ring Kit (Included in Major and Minor Overhaul Kit)	1	1681404C91
82-381-2	Ring - Snap Drive Gear	1	110250R1
40-381-3	Ring - Snap Countershaft Drive Gear	1	287049R1 *
101-381-2	Ring - Snap 1st M/S Rear/3rd, 4th M/S Front	2	1681324C1
40-381-4	Ring - Snap 4th and 5th Mainshaft Clutch Gear	1	644771R1 *
101-381-1	Ring - Snap 5th and 6th Mainshaft Gear	1	1681325C1
40-381-1	Ring - Snap 6th and 7th Clutch Gear	1	596407C1
27-381-5	Ring - Snap 6th Countershaft Gear	1	684645R1
101-381-4	Ring - Snap 1st Speed Thrust Washer	1	1693567C1

* Navistar may purchase from Vendor other than Dana.

MODEL ES52-7A/ESO65-7A

TABULATED BILLS OF MATERIAL

Page 22

Tab No.	Used By	For Use With Clutch	Clutch Housing			Main Drive Gear A-1 Page 3	Drive Gear Bearing Cap F-1 Page 9	Case Assembly Front G-1 Page 11
			S A E	Assembly Number E-1 Page 9	Ref. Code			

Model ES52-7A

301451

-1	Navistar	1665722C91	Pull Type	2	101-518-7-1X	-	101-35-7-1X	101-19-2-1X	101-15-6-1X
-2	Navistar	1665735C91	Pull Type	2	101-518-7-1X	-	101-35-7-1X	101-19-2-1X	101-15-6-1X
-3	Navistar	1665721C91	Push Type	2	101-518-7-1X	-	101-35-8-1X	101-19-6-1X	101-15-6-1X
-4	Navistar	1665729C91	Push Type	2	101-518-7-1X	-	101-35-8-1X	101-19-6-1X	101-15-6-1X
-5	Australia	-	Pull Type	2	101-518-7-1X	-	101-35-7-1X	101-19-2-1X	101-15-6-1X
-6	Tsp Mexico	-	Pull Type	2	101-518-7-1X	-	101-35-7-1X	101-19-2-1X	101-15-6-1X
-7	Australia	-	Pull Type	2	101-518-7-1X	-	101-35-7-1X	101-19-2-1X	101-15-6-1X
-8	Hino Motors	-	Pull Type	2	101-518-7-1X	-	101-35-7-1X	101-19-2-1X	101-15-6-1X
-9	Navistar	2003997C91	Pull Type	2	101-518-7-1X	-	101-35-7-1X	101-19-2-1X	101-15-6-1X
-10	Navistar	2003996C91	Push Type	2	101-518-7-1X	-	101-35-8-1X	101-19-6-1X	101-15-6-1X
-11	Navistar	2009823C91	Pull Type	2	101-518-7-1X	-	101-35-14-1X	101-19-2-1X	101-15-6-1X
-12	Navistar	2009822C91	Pull Type	2	101-518-7-1X	-	101-35-14-1X	101-19-2-1X	101-15-6-1X
-13	Navistar	2009821C91	Pull Type	2	101-518-7-1X	-	101-35-14-1X	101-19-2-1X	101-15-6-1X
-14	Navistar	2009800C91	Push Type	2	101-518-7-1X	-	101-35-15-1X	101-19-6-1X	101-15-6-1X
-15	Navistar	2009801C91	Push Type	2	101-518-7-1X	-	101-35-15-1X	101-19-6-1X	101-15-6-1X
-16	Navistar	2009802C91	Push Type	2	101-518-7-1X	-	101-35-15-1X	101-19-6-1X	101-15-6-1X
-17	Tsp Mexico	-	Pull Type	2	101-518-7-1X	-	101-35-14-1X	101-19-2-1X	101-15-6-1X
-25	Navistar	1695428C91	Pull Type	2	101-518-7-1X	-	101-35-7-1X	101-19-2-1X	101-15-6-1X
-26	Navistar	1695429C91	Push Type	2	101-518-7-1X	-	101-35-8-1X	101-19-6-1X	101-15-6-1X
-27	Navistar	1695439C91	Pull Type	2	101-518-7-1X	-	101-35-14-1X	101-19-2-1X	101-15-6-1X
-28	Navistar	1695431C91	Push Type	2	101-518-7-1X	-	101-35-15-1X	101-19-6-1X	101-15-6-1X

Model ESO65-7A

301452

-1	Navistar	1665723C91	Pull Type	2	101-518-7-1X	-	101-35-4-1X	101-19-2-1X	101-15-6-1X
-2	Navistar	1665734C91	Pull Type	2	101-518-7-1X	-	101-35-4-1X	101-19-2-1X	101-15-6-1X
-3	Navistar	-	Push Type	2	101-518-7-1X	-	101-35-10-1X	101-19-6-1X	101-15-6-1X
-4	Navistar	-	Push Type	2	101-518-7-1X	-	101-35-10-1X	101-19-6-1X	101-15-6-1X
-5	Australia	-	Pull Type	2	101-518-7-1X	-	101-35-4-1X	101-19-2-1X	101-15-6-1X
-6	Australia	-	Pull Type	2	101-518-7-1X	-	101-35-4-1X	101-19-2-1X	101-15-6-1X
-7	Navistar	2003998C91	Pull Type	2	101-518-7-1X	-	101-35-4-1X	101-19-2-1X	101-15-6-1X
-8	Eurotruck	-	Pull Type	2	101-518-7-1X	-	101-35-4-1X	101-19-2-1X	101-15-6-1X
-9	Navistar	2009827C91	Pull Type	2	101-518-7-1X	-	101-35-16-1X	101-19-2-1X	101-15-6-1X
-10	Navistar	2009825C91	Pull Type	2	101-518-7-1X	-	101-35-16-1X	101-19-2-1X	101-15-6-1X
-11	Navistar	2009824C91	Pull Type	2	101-518-7-1X	-	101-35-16-1X	101-19-2-1X	101-15-6-1X
-12	Navistar	2027373C91	Push Type	2	101-518-7-1X	-	101-35-17-1X	101-19-6-1X	101-15-6-1X
-13	Tsp Mexico	-	Pull Type	2	101-518-7-1X	-	101-35-16-1X	101-19-2-1X	101-15-6-1X
25	Navistar	1695432C91	Pull Type	2	101-518-7-1X	-	101-35-4-1X	101-19-2-1X	101-15-6-1X
27	Navistar	1695433C91	Pull Type	2	101-518-7-1X	-	101-35-16-1X	101-19-2-1X	101-15-6-1X

Note: See Page No. in Column Headings for Navistar Part No.

Tab No.	Case Assembly Rear RG-1 Page 13	Mainshaft Rear Bearing Cap Gasket & Seal Assy. RH-1 Page 13	Speedometer		End Yoke or Companion Flange Page 9	Lever and Tower Control Assy. Page 17	Remote Control Assy.
			Drive or Signal RB-13 Page 5	Driven			

Model ES52-7A

301451

-1	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-2	101-15-5-1X	40-19-41-2X	53-452-5	-	-	-	-
-3	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-4	101-15-5-1X	40-19-41-2X	53-452-5	-	-	-	-
-5	101-15-5-1X	40-19-43-2X	53-452-5	-	5-4-6321-1	-	40-18-1-6X
-6	101-15-5-1X	40-19-43-2X	53-452-5	-	5-4-6321-1	-	-
-7	101-15-7-1X	40-19-43-2X	53-452-5	-	5-4-6321-1	-	40-18-1-6X
-8	101-15-7-1X	40-19-22-2X	53-452-4	53-453-2	4-1-6051X	-	40-18-1-10X
-9	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-10	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-11	101-15-5-1X	40-19-41-2X	53-452-5	-	-	-	-
-12	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-13	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-14	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-15	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-16	101-15-5-1X	40-19-41-2X	53-452-5	-	-	-	-
-17	101-15-7-1X	40-19-43-2X	53-452-5	-	6-4-7301-1	101-17-2-29X	-
-25	101-15-5-1X	201-37-7	53-452-5	-	-	-	-
-26	101-15-5-1X	201-37-7	53-452-5	-	-	-	-
-27	101-15-5-1X	201-37-7	53-452-5	-	-	-	-
-28	101-15-5-1X	201-37-7	53-452-5	-	-	-	-

Model ESO65-7A

301452

-1	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-2	101-15-5-1X	40-19-41-2X	53-452-5	-	-	-	-
-3	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-4	101-15-5-1X	40-19-41-2X	53-452-5	-	-	-	-
-5	101-15-5-1X	40-19-43-2X	53-452-5	-	5-4-6321-1	-	40-18-1-6X
-6	101-15-7-1X	40-19-43-2X	53-452-5	-	6-4-7301-1	-	-
-7	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-8	101-15-7-1X	40-19-38-2X	53-452-4	53-453-2	53-106-2	-	40-18-1-10X
-9	101-15-5-1X	40-19-41-2X	53-452-5	-	-	-	-
-10	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-11	101-15-5-1X	40-19-43-2X	53-452-5	-	-	-	-
-12	101-15-5-1X	40-19-41-2X	53-452-5	-	-	-	-
-13	101-15-7-1X	40-19-43-2X	53-452-5	-	-	-	-
-25	101-15-5-1X	201-37-7	53-452-5	-	-	-	-
-27	101-15-5-1X	201-37-7	53-452-5	-	-	-	-

Note: See Page No. in Column Headings for Navistar Part No.