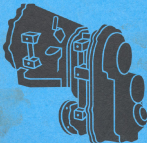




Velvet Drive Marine Transmission V-Drive Service Manual All Ratios



Warner Gear

A Division of BorgWarner Corporation

Velvet Drive Marine Transmission V-Drive Service Manual All Ratios



Gear Wear Test Followed

Illustration, Under Test, No. 2
100 to 1000 RPM
No. 100000-100000

DEC. 10 1984

Warner Gear

Division of Borg-Warner Corporation
P.O. Box 10000, Detroit, Michigan 48202
Telephone: (313) 481-1000 Telex: 27-1000

TABLE OF CONTENTS

TRANSMISSION DESCRIPTION	ii
P-DRAW ASSEMBLIES	iii
PARTS LIST 10-18	iv
PARTS LIST 19-25	v
P-DRAW PARTS LIST	vi
TRANSMISSION OPTIONS	vii
ASSEMBLY OF P-DRAW	viii
INSTALLATION REQUIREMENTS	ix
INSTALLATION DIMENSIONS 10-18	x
INSTALLATION DIMENSIONS 19-25	xi
HYDRAULIC FLUID RECOMMENDATIONS	xii
SPECIFICATIONS	xiii
TRUBLE SHOOTING CHART	xiv

TRANSMISSION DESCRIPTION

Transit 7-Drive™ (7-Speed) integral transmission Trans 7Drive for select and severe transmissions, available in this service manual. These assemblies are designated as 7D-00/7D-01 or 7D-02/7D-03 models. The 7D-04 and 7D-05 models belong into the model of forward-actuated transmission portion of the assembly and these are included in the "Forward Drive Models 7F0 and 7F1" separately. The transmission designates the model of the 7-Drive portion of the whole assembly.

7-Drive assemblies are available with the different ratio of input to output shaft speed. Assemblies are available in all ratio with output shaft rotation which is the same as or opposite to input shaft rotation.

Each drive units, when mounted in forward, will have the same output shaft rotation as input shaft rotation. The drive shafts will have output shaft rotation opposite to input shaft rotation.

A 10-speed input gear on the intermediate shaft and a 10-tight input gear on the output shaft are common for all 7-Drive transmissions. Six helical gears are used in interchangeable pairs on the input shaft and intermediate shaft to obtain the various ratios in the gear drive units. Six

gears are used in interchangeable pairs on the input shaft and intermediate shaft of each drive unit to obtain the various ratios. A Reverse Idler Gear is used in the drive drive unit.

All 7-Drive assemblies may have the gears (input) for ratios 1st or 10th rotation of the input shaft. All assemblies will be shipped from the factory with the gears (input) as 1st ratio. See section on rotation, page 77 and 7-Drive assembly shafting drawings.

The input face dimensions and mounting face locations are the same for all input ratios. Input shaft dimensions, including the input shaft input ratio (intermediate), is included in each output shaft drawing. The minimum of problems, such as the wide availability of input shafts or producing input drive in the unit.

Trans 7-Drive mounted type assemblies should be driven over ratio. The center distance between the intermediate and input shafts are very slightly different, and to increase to select the right gear set gear or shaft set certain size numbers. Interchanging chart gives gear and shaft combinations for all 7-Drive assemblies.

THE FOLLOWING CHART SHOWS NUMBER OF TEETH ON INPUT AND INTERMEDIATE SHAFT (Gears OR SPURGEETS WHICH ARE USED TO OBTAIN THE VARIOUS 7-DRIVE RATIOS

GEAR DRIVE UNITS				SHAFT DRIVE UNIT 7D			
RATIO	No. Teeth Input Gear	No. Teeth Inter. Gear	Gears	RATIO	No. Teeth Input Gear/Idler	No. Teeth Inter. Gear/Idler	Gears
1.000:1.000	24	24	1	1.000:1.000	24	24	1
1.250:1.000	30	24	1	1.250:1.000	30	24	1
1.400:1.000	36	24	1	1.400:1.000	36	24	1
1.571:1.000	42	24	1	1.571:1.000	42	24	1
1.714:1.000	48	24	1	1.714:1.000	48	24	1
1.857:1.000	54	24	1	1.857:1.000	54	24	1

7D-00 assembly having 12 or 12.500 rotation and the same ratio.
7D-01 assembly having 12 or 12.500 rotation and the same ratio.

Abstract

Abstract

Category	Item ID	Item Name	Inventory Status		Sales Performance			Customer Feedback	Overall Rating
			In Stock	Low Stock	Units Sold	Revenue			
						Q1	Q2		
Electronics	001	Smartphone X	1500	50	1200	12000	12000	4.5	95%
	002	Smartphone Y	1200	80	900	9000	9000	4.3	92%
	003	Smartwatch Z	800	20	600	6000	6000	4.7	98%
	004	Tablet W	600	10	400	4000	4000	4.2	90%
	005	Laptop V	400	5	300	3000	3000	4.6	96%
	006	Smart TV U	300	15	200	2000	2000	4.4	94%
	007	Smart Home Hub	200	10	150	1500	1500	4.8	99%
	008	Wireless Earbuds	1000	30	800	8000	8000	4.1	89%
	009	Smartwatch X	700	15	500	5000	5000	4.6	96%
	010	Smartwatch Y	600	10	400	4000	4000	4.5	95%
	011	Smartwatch Z	500	5	300	3000	3000	4.7	98%
	012	Smartwatch W	400	5	200	2000	2000	4.4	94%
Clothing	013	Men's T-Shirt	2000	100	1500	15000	15000	4.2	90%
	014	Men's Polo Shirt	1500	80	1000	10000	10000	4.3	92%
	015	Men's Dress Shirt	1000	50	700	7000	7000	4.4	94%
	016	Men's Casual Shirt	800	40	500	5000	5000	4.5	95%
	017	Men's Button-Down	600	30	400	4000	4000	4.6	96%
	018	Men's Polo Shirt	500	20	300	3000	3000	4.7	98%
	019	Men's Dress Shirt	400	15	200	2000	2000	4.8	99%
	020	Men's Casual Shirt	300	10	150	1500	1500	4.9	100%
	021	Men's Button-Down	200	5	100	1000	1000	5.0	100%
	022	Men's Polo Shirt	100	2	50	500	500	5.0	100%
	023	Men's Dress Shirt	50	1	25	250	250	5.0	100%
	024	Men's Casual Shirt	25	0	12	120	120	5.0	100%
Home Goods	025	Living Room Sofa	100	5	80	8000	8000	4.5	95%
	026	Living Room Chair	80	4	60	6000	6000	4.4	94%
	027	Living Room Table	60	3	40	4000	4000	4.3	92%
	028	Living Room Bed	40	2	20	2000	2000	4.2	90%
	029	Living Room Bed	30	1	15	1500	1500	4.1	89%
	030	Living Room Bed	20	0	10	1000	1000	4.0	88%
	031	Living Room Bed	10	0	5	500	500	3.9	87%
	032	Living Room Bed	5	0	2	200	200	3.8	86%
	033	Living Room Bed	2	0	1	100	100	3.7	85%
	034	Living Room Bed	1	0	0	50	50	3.6	84%
	035	Living Room Bed	0	0	0	0	0	3.5	83%
	036	Living Room Bed	0	0	0	0	0	3.4	82%

[illegible]

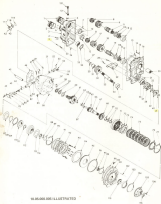
1000

© 2006 The Authors
Journal compilation © 2006 Blackwell Publishing Ltd

¹⁴ <http://www.fishbase.org> (accessed 10/10/2008). ¹⁵ <http://www.fishbase.org> (accessed 10/10/2008).

10-04 & 10-05 FORWARD & RETURN TRANSMISSION PARTS LIST

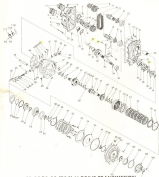
[illegible]



IN STOCK NOW & SHIPPED

1990 1991 1992 1993 1994

[illegible]



10-05/13-08 (P2C) V-DRIVE TRANSMISSION

FOR 2 INCH WIDE CHAIN

V-DRIVE PARTS LIST for 2" wide chain drive units & gear drive units without spacers			REAR DRIVE					CHAIN DRIVE				
ITEM NO.	PART NAME	PART NO.	1	2	3	4	5	6	7	8	9	10
1	Frame, Ltr	1000000000										
2	Case, Ltr	1000000000										
3	Case, Rtr	1000000000										
4	Case, Ltr	1000000000										
5	Case, Rtr	1000000000										
6	Case, Ltr	1000000000										
7	Case, Rtr	1000000000										
8	Case, Ltr	1000000000										
9	Case, Rtr	1000000000										
10	Case, Ltr	1000000000										
11	Case, Rtr	1000000000										
12	Case, Ltr	1000000000										
13	Case, Rtr	1000000000										
14	Case, Ltr	1000000000										
15	Case, Rtr	1000000000										
16	Case, Ltr	1000000000										
17	Case, Rtr	1000000000										
18	Case, Ltr	1000000000										
19	Case, Rtr	1000000000										
20	Case, Ltr	1000000000										
21	Case, Rtr	1000000000										
22	Case, Ltr	1000000000										
23	Case, Rtr	1000000000										
24	Case, Ltr	1000000000										
25	Case, Rtr	1000000000										
26	Case, Ltr	1000000000										
27	Case, Rtr	1000000000										
28	Case, Ltr	1000000000										
29	Case, Rtr	1000000000										
30	Case, Ltr	1000000000										
31	Case, Rtr	1000000000										
32	Case, Ltr	1000000000										
33	Case, Rtr	1000000000										
34	Case, Ltr	1000000000										
35	Case, Rtr	1000000000										
36	Case, Ltr	1000000000										
37	Case, Rtr	1000000000										
38	Case, Ltr	1000000000										
39	Case, Rtr	1000000000										
40	Case, Ltr	1000000000										
41	Case, Rtr	1000000000										
42	Case, Ltr	1000000000										
43	Case, Rtr	1000000000										
44	Case, Ltr	1000000000										
45	Case, Rtr	1000000000										
46	Case, Ltr	1000000000										
47	Case, Rtr	1000000000										
48	Case, Ltr	1000000000										
49	Case, Rtr	1000000000										
50	Case, Ltr	1000000000										
51	Case, Rtr	1000000000										
52	Case, Ltr	1000000000										
53	Case, Rtr	1000000000										
54	Case, Ltr	1000000000										
55	Case, Rtr	1000000000										
56	Case, Ltr	1000000000										
57	Case, Rtr	1000000000										
58	Case, Ltr	1000000000										
59	Case, Rtr	1000000000										
60	Case, Ltr	1000000000										
61	Case, Rtr	1000000000										
62	Case, Ltr	1000000000										
63	Case, Rtr	1000000000										
64	Case, Ltr	1000000000										
65	Case, Rtr	1000000000										
66	Case, Ltr	1000000000										
67	Case, Rtr	1000000000										
68	Case, Ltr	1000000000										
69	Case, Rtr	1000000000										
70	Case, Ltr	1000000000										
71	Case, Rtr	1000000000										
72	Case, Ltr	1000000000										
73	Case, Rtr	1000000000										
74	Case, Ltr	1000000000										
75	Case, Rtr	1000000000										
76	Case, Ltr	1000000000										
77	Case, Rtr	1000000000										
78	Case, Ltr	1000000000										
79	Case, Rtr	1000000000										
80	Case, Ltr	1000000000										
81	Case, Rtr	1000000000										
82	Case, Ltr	1000000000										
83	Case, Rtr	1000000000										
84	Case, Ltr	1000000000										
85	Case, Rtr	1000000000										
86	Case, Ltr	1000000000										
87	Case, Rtr	1000000000										
88	Case, Ltr	1000000000										
89	Case, Rtr	1000000000										
90	Case, Ltr	1000000000										
91	Case, Rtr	1000000000										
92	Case, Ltr	1000000000										
93	Case, Rtr	1000000000										
94	Case, Ltr	1000000000										
95	Case, Rtr	1000000000										
96	Case, Ltr	1000000000										
97	Case, Rtr	1000000000										
98	Case, Ltr	1000000000										
99	Case, Rtr	1000000000										
100	Case, Ltr	1000000000										

TOLSON **WORTH** **PERKINS**

*The number following a plus (+) refers to the index number of that card in volume 10 of the microfiche series.

© 2004 Blackwell Publishing Ltd
Journal of Internal Medicine 255: 103–110

- It helps maintain and thoroughly clean the furnace, steam pipes and condenser tubes in manufacturing plants.

Table 1

- (1) Measure segment length and add 10% (round down) (20).
- (2) Measure eight segments and add twice (16) and (round down).
- (3) [Join observed segment pairs (1' & 2') from same and opposite directions and from same and opposite sides.]

REUSE: Reusing components and past client strategies and solution design patterns. The client is aware that reuse of the various components should be considered.

- (ii) Life expectancy of 50 years for the 1990. The decedent's estate is treated until the year of death as if decedent died in 1990.

- (c) Representative shell (10) and attached parts from same.

DISCUSSION – Approximately three hundred of the first white women lived with their female relatives, friends, and family and also with other women, some poor and working ones. These women shared their experiences about community violence.

- (8) Readings, papers and presentations for ground from the studies affect enhancement of any of these goals to negative outcomes. Further, dominantly is constructed.

- 100% of agriculturalists collected up to 100 lbs (45 kg) corn and were
not allowed to remove more. The bottom of the dried corn
husks were left in place.

110. *Stomoxys calcitrans* (L.) (Diptera: Stomoxysidae) is a blood-sucking pest of livestock. It is a common pest of cattle, horses, and swine. The adult flies are about 1/4 inch long and have a dark, metallic sheen. They are very persistent and can be difficult to control. They feed on the blood of their hosts and can cause significant irritation and discomfort. They are also a vector for several diseases, including anthrax and trypanosomiasis. Control measures include the use of insecticides, physical barriers, and good hygiene practices.

1910. However, the maximum drug effect levels were still not seen on subsequent visits.

[illegible]

- [illegible]

[illegible]

- It is important to point out that necessary testing is essential to the proper functioning of instruments. Instruments that cannot detect change have little chance to allow for thoughtful thinking and interpretation of what is going on. The consequences are considerable. The test system will not be able to do what it was built for. The consequences are considerable.

- ¹⁰ *See* www.fishbase.org for changes in extent. *See* also www.fishbase.org.

- 2) Electrical connections and contact parts should be replaced as soon as they wear. Electrical components in the wheel hub are also subject to wear.

- 8) All test measurements are first conducted by subject in either prone, seated, or standing, and then in properly fitted boots in the same position. Measurement with and without boots positioned are usually comparable.

- Re: Automatic transmission fluid should be used to lubricate gear parts as they are assembled. Automatic gear oil is used for gears in select parts that require higher pressure during assembly. Lubricated parts will assemble properly to those not oiled.

- doi:10.1017/S0022278X12000509

ASSEMBLING FORWARD & REVERSE TRANSMISSION

- 3) Push the selector tube (36) inward. Normally the tube should not be removed from transmission case.
- 4) Open the dust boot of the input member (30) with gear shafts fully. Insert output shaft bush against the dust boot face of case with output ring positioned at case end (case).
- 5) Insert output cage and output shaft (35) bush against the input member. Insert rotation of output cage and case.

ASSEMBLY OF W-DRIVE

ASSEMBLING W-DRIVE CASE & COVER

- 1) Place the lubricated oil baffles (34) into bore that will meshing with. This baffles correctly will not be removed.
- 2) Place a bearing cup (10) into each of the two bores of the case (16).
- 3) Lubricate and assemble an "O" ring (2) into groove in each of the two bearing cups (10).
- 4) Insert bush bearing cups into case cover (8). Bear face of cup should be flat with case cover with adjustment is made after shaft and case are assembled.
- 5) Assemble a bearing cup (10) into each of the two bores of the case cover (8). These cups should be seated against bearing cup.
- 6) Place the output shaft roller bearing (35) into case (8). Assemble a snap ring (3) into the bearing at intermediate ring position. Support end cover, position the that finger ball from input shaft bush.

OUTPUT SHAFT ASSEMBLY

- 1) Place the three baffles in position on drive shaft case cover only, but do not assemble against the case. Assemble the large input gear (18) and the output shaft (35) shafts. The input gear should have more than the output end of the output shaft. Place the roller bearing (35) into the output shaft and into contact with the case gear. Then assemble the input (18) and the output (35) into the case cover (8) to make the same to the shaft. Turn case and allow into the case cover. When a shaft end (35) reach to the input end in the case, the roller bearing is push bearing (35) to (36) into the case cover the output end of the output shaft.

put shaft during assembly in this hole to avoid roller being from case cover.

NOTE: The oil baffles (34) shown in the exploded view are used on early models, but will not be found in later units as it is not required.

- 4) Complete disassembly of the forward and reverse input member by following assembly instructions given in either the service manual for Models 90C & 70C for 10-20 units or 70C Cover (2) is needed for 10-20 units.

- 5) Coat the input gear teeth with red lead and position assembly the output shaft with attached parts into the output shaft housing in the case cover. The oil ring will be used to check gear teeth contact.

INTERMEDIATE SHAFT ASSEMBLY

NOTE: The input shaft input gear is operation and intermediate shaft input gear is operation are interchangeable features. To obtain the same ratio, each gear must be assembled in the same location. The reduction ratio varies changed by changing gears in operation locations. The difference is Drive case assembly. Each assembly for used for certain ratios and must not be used for others.

- 5) Assemble the input shaft gear or operation (35) to the oil bearing bush (see that on page 4) and the small input gear (18) into the intermediate shaft assembly, then pre-assembling case (8) into the end of the shaft. The input gear should have away from the input gear in operation.

NOTE: The 20 tooth sprocket, which is used on 10-11 and 20-11 units, is smaller than the intermediate sprocket. It is necessary on these two drive drive units for assembly the drive end the two sprockets prior to pressing the bearing into the shaft to avoid the intermediate gear has been installed. In assembling drive drive assemblies only, both the input shaft and intermediate shaft with drive assembled on the sprocket must be assembled into 10-Drive case cover at the same time.

- 10) Coat the input gear with red lead and position intermediate shaft assembly into the bearing cup in the case cover with the input gear are exactly perpendicular with it will be necessary to lift the output shaft approximately to contact with to prevent the input gear with the output shaft to obstruct the input gear on the output shaft.

INPUT SHAFT ASSEMBLY

1.2. Assemble the input gear on sprocket (3) over input shaft. If it rotates and goes in bearing race (5) against the shoulder on each end of the shaft.

1.3. Assemble the input shaft front bearing race into bearing cup on the two input gears and assembly brought into mesh.

1.4. Insert the oilseals (26) and screw (28) in gear drive shaft and install the screws to retain the chain belts on drive drive ends.

END TO END COVER ASSEMBLY

1.5. Assemble a gasket with screw over cover flange and cover hole, insert the cover into contact with gasket and cover hole.

1.6. Assemble rings (14) & (15) for head bolts (3) and fasten them (20) for driver's tightness. (Continuing to use also (7) & (24) integrals and cover, then tighten the cover to use bolts in the recommended format.

OUTPUT SHAFT BEARING ASSEMBLY

NOTE: Bearings are installed in matched sets and number marks must align. One bearing race will have a number with an "H" suffix, the other will have the same number without the "H" suffix. The outer race will have the same number with the suffix "H" on several points visible on the outer ring. The parts with the "H" suffix should be placed together and the end of the race will be marked to be placed with the bearing race without the "H" suffix.

CAUTION

DO NOT USE A OUTPUT SHAFT CHANGE

The input shaft bearing race height is approximately 200 mm, race was measured (20) inch diameter than current race. These race are easily identified since the expansion (24) synchronous rollers.

The early output shaft used with the chain cover (20) inch width over the shaft race which contains the output shaft bearing. The present output shaft with a (20) inch drive gear placed against the shaft face is equivalent to the early shaft.

Before replacing an output shaft or race, the replacement must be the shaft, bearing race and bearing cup. About 1960 in fourth edition.

NOTE: EARLY BEARING

Approximately 200 parts with a bearing race with a bearing race shoulder and bearing and another drive end, bearing race and bearing rollers. These drive ends used to adjust the chain between the two input gears. Replacing these drive in this case originally installed will naturally give the correct gear timing.

The following procedure for checking and correcting gear mesh should be used for this adjustment of drive gear sets.

a) Use a trial drive gear which is (20) inches thick when the original gear thickness is not known. However, the original drive gear or a new gear of equal thickness should be used when possible. Place the drive in the direction of the input shaft bearing race.

b) Place one bearing race into bearing cup and assemble the outer race against rollers. Place the outer bearing race in the rear bearing race.

c) Assemble bearing cup (26), without drive or gear fasten them around cup. Replace these rollers in such on the shaft to allow cup to use. The bearing race must be removed to correct the thickness of the drive gear after gear fasten them around and original gear thickness correction has been determined.

d) Check the gear contact as described in the section "Checking Tooth Contact".

1.7. Assemble the original drive gear on the output shaft and fasten them with output shaft shoulder. A (20) inch end drive gear shoulder and when the original gear thickness is unknown.

1.8. Place one output shaft bearing race over the output shaft and against the drive gear. The bearing cup is a very tight press fit in the race, and can usually be forced over the race. Place the second bearing race over the output shaft.

1.9. Press an oil seal (26) into bearing cup (26). The seal should be flush with outer face of rollers.

1.10. Assemble the gasket (24), bearing cup (26) and bolts to retain them in place. The bearing race should be installed with the ring end of chain gears down. Both (26) and (26) were used in early units. Both, if necessary, may be used to replace damaged parts.

201. Assemble the coupling (10) and output shaft end cap applying Loctite 70300 sealcoat on the threads and to the face of the coupling to reduce the possibility of oil leakage when pressure is used for fastening.

202. Adjust the free bearing gap by tightening/loosening to 0.05 in. (1.3 mm) until the input shaft is fully seated on approximately 100-1000. Then back off bearing until constant to see that input shaft is in proper position. 0.02 to 0.06 inch (0.5 to 1.5 mm) working for each shaft.

CHANGING BEVEL GEAR TOOTH CONTACT

203. Turn clamping through at least two or three complete rotations. Look through the opening in shaft to the output cap ring. It will be rounded and show the tooth contact pattern. The contact pattern should be centered and/or be changed by adding or removing shims. The face of the two shaft gears will be evenly flat or oval when the tooth contact is correct.

NOTE: A flat is often water-buff without the equipment coming in the test room. It can be necessary to correct the test room by flat the tooth contact surface may be in contact at this point.

204. Shims (24) may be added or removed as required to correct the contact pattern. Remove output shaft end cap, coupling (10), bearing (10) and shaft end bearing (10) by gently changing the clearance. Observe the difference from gear face with glass plate indication of the contact and weakness change. Add or remove shims and shaft both correct until good contact is obtained.

NOTE: The oiler gear will be found under the bearing (10) when in a few early units. The shims will be located

and removed to obtain proper gear tooth contact pattern. Remove and wear shaft will gear and remove the bearing from a short run to permit changing the oiler gear, which is under clamping.

It is noted that a gear is required to make contact for the gear between bearing cap (10) and V-Gear cap. The gear change on the bearing cap should be made proper gear tooth, tooth, for the bearing, output gear, and for the bearing clearance between bearing cap and V-Gear cap, also from (10) to (10) additional gear thickness to ensure that there will be no gap in the bearing.

205. Replace the expansion ring (4) and all parts which were removed for expanding tooth contact. Use filing on a square case, should be used on the outside diameter of the expansion ring to ensure a constant.

ASSEMBLY IS DONE

TOP TRANSMISSION AND BEVEL TRANSMISSION

206. Assemble the transmission to a bearing (10) over the shaft and onto the face of bearing and output from output cap.

207. Assemble the output coupling (10) over bearing and output transmission output shaft.

208. Observe the bearing assembly in the test face of the bearing and output transmission. Observe the bearing cap and shaft make it impossible to change the bearing cap and shaft assembly with the test face being used parallel alignment.

209. Assemble and tighten flange 1/2" to 1/2" (1/2" to 1/2") over shaft and bearing.

WATER TEMPERATURE

Hot water should be fed directly to the 1/2" line cooler. Hot water temperatures above 150°F are permitted only if larger coolers are used to maintain the temperature at transmission temperature.

CONDUCTED COOL TO TRANSMISSION

Water can be used to dissipate oil which is circulating the cooler from the transmission. The water jet opening is located just behind the suction side of the top row of the cool and return transmission. All units will be shipped with a plastic plug installed in this location.

Cooler return is used to dissipate oil throughout the transmission. 1/2" lines will have the cooler jet located in an opening at the front end of 1/2" discharge pipe. All units will be shipped with a plastic plug in this location.

INSULATING MATERIAL

All coolers be insulated above the oil to cooler unless the cool air jetting is located at the highest point on the cooler. Trapped air reduces cooling capacity, causes freezing, pump cavitation, and burn off through the cooler.

Horizontal mounting is preferred because it prevents oil from draining from the cooler. Oil-soaked foam protects which is mounted higher than the transmission body will give a misleadingly high reading of the actual output.

TRANSMISSION TO ENGINE ADAPTER ASSEMBLY

The transmission to engine adapter to maintain alignment should not exceed .005 inch for both fore and aft after install.

PROPELLER SHAFT ALIGNMENT

Check coupling alignment with all bolts removed from the coupling. Remove the propeller shaft coupling alignment at each of several positions then rotate the transmission coupling and check the alignment in several positions. A bent shaft or coupling will cause the alignment to change as the coupling is rotated.

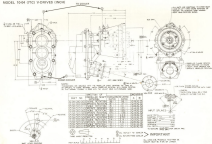
Alignment is satisfactory when shaft and coupling across the entire face of coupling and the coupling faces are within .001 inch of parallel.

CAUTION: Do not force or yank the transmission coupling to make the angles, as this can distort the coupling. Bent or distorted coupling can be related to failure.

SHIFT LEVER MECHANISM

The release control must position the detent ball exactly in 1/2" clearance, in forward or 1/2" forward position with the ball popped backward the shift lever holds in each position position. The detent ball is mounted in the shift lever poppet spring and is not to be permanently removed or if the detent lever is changed in any manner or replacement or if the gap between control control and transmission shift lever does not have sufficient travel in both directions. This does not apply to transmission equipped with throttle cable as stated shift control.

INSTALLATION DIMENSIONS
MODEL 1044 (STC) 7-DAY/28-NIGHT



HYDRAULIC FLUID RECOMMENDATIONS

TRANSMISSION FLUID

Types T-1, Type T-2, and other hydraulic transmission fluids manufactured by John Deere under Type T designations are recommended for use in all John Deere engine transmissions.

Substituting other fluids are recommended for use in John Deere engine transmissions using the John Deere Type T-2 fluid. Substituting any mineral oil in the engine should show oil weight 150N (SAE 150) or 160 (summer) (SAE 160) or equivalent. (SAE, high-temperature ratings are to be considered.) (SAE, high-temperature rating for 150N-160 engine applications. The low viscosity is an oil which fits in the SAE 150 engine Class 150. The second viscosity number is oil which fits in the SAE 160 engine Class 160.

The equivalent SAE oil weight are:

150N SAE 150W
160 SAE 160W

The SAE oil specifications are designed for John Deere Motor, John Deere of General Motors to ensure the requirements of all oil grades for use in their many hydraulic equipment and construction transmissions. The oil companies' specifications provide information as to the suitability of their product for use in a given application.

WARNING: Use the center to properly identify and the transmission service instructions starting or during the repair.

FLUIDS AND COMPONENTS FOR HYDRAULIC SYSTEM

Check oil daily before starting engine. The John Deere Hydraulic fluid includes the information of oil grade, weight, viscosity and grade that corrected the oil level. The hydraulic fluid level must be kept when filling the transmission and the recommended oil level after before the oil level should not be filled. The oil will be compressed throughout the oil level is maintained above

the pump system operating while the engine is running at approximately 1500 RPM. The pressure of the fluid in the oil should indicate that the transmission has been changed.

After operation of a system installation should be checked to ensure that the oil level is above the level of the transmission. The center and lower level should be the oil level for the first check only. Immediately after the engine is shut off and again after the engine has been started for more than 10 minutes (immediately if possible) indicate in oil level that the oil level is correct. Indicate that the oil is changing from center and lower level. The center should be changed to prevent any fluid loss.

ENGINE OIL GRADE CHECK

As a final check, the engine oil level should be checked and replenished. However, the oil level must first be checked to ensure the engine oil level is correct and that the oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct.

oil capacity

The John Deere engine oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct.

WARNING:

A warning of change is recommended if the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct.

OPERATING PRESSURE

John Deere engine oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct.

The John Deere oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct. The oil level should be checked to ensure the engine oil level is correct.

USE THIS CHART FOR JOHN DEERE TYPE T-2 FLUID (SAE 150)

TEMP	SAE 150 FLUID PRESSURE				SAE 160 FLUID PRESSURE			
	150N		160N		150N		160N	
	150N	160N	150N	160N	150N	160N	150N	160N
150N	150	160	150	160	150	160	150	160
160N	150	160	150	160	150	160	150	160
170N	150	160	150	160	150	160	150	160

USE THIS CHART FOR JOHN DEERE TYPE T-2 FLUID (SAE 150)

TEMP	SAE 150 FLUID PRESSURE				SAE 160 FLUID PRESSURE			
	150N		160N		150N		160N	
	150N	160N	150N	160N	150N	160N	150N	160N
150N	150	160	150	160	150	160	150	160
160N	150	160	150	160	150	160	150	160
170N	150	160	150	160	150	160	150	160

V-DRIVE TORQUE CHART

PART NUMBER	DESCRIPTION	APPLICATION	Torque Pound Feet	Torque Newton Meters
0000100000	1/8-20 x 1/2 Machine Screw	Barfite to Case	8-11	10.8-14.9
0000100001	1/8-20 x 5/8 Hex Head Bolt	Valve Cover to Case	8-11	10.8-14.9
0000100001	1/8-20 x 1/2 Hex Head Bolt	Valve Cover to Case	8-11	10.8-14.9
0000100001	1/8-20 x 7/8 Hex Head Bolt	Valve Cover to Case	8-11	10.8-14.9
0000100001	1/8-14 x 2 Hex Head Bolt	Steering Cap to V-Drive	42-68	56.8-91.8
40000	1/8-14 x 1-1/4 Hex Head Bolt	V-Drive Cover to Base	66-78	81.3-94.9
0000400001	1/8-20 Hex Head Nut	V-Drive vs. P & R Transmission	58-65	67.8-74.4
100000000001	3/8-20 x 7/8 Cap Screw	Keeper on Output Shaft	42-68	56.8-91.8
0000100001	5/16-20 Hex Nut	Shift Lever to Valve	8-11	10.8-14.9
0000444001	3/8-18 Pipe-Plug	Case	11-21	11.0-28.0
0000444001	1/4 Pipe-Plug	Adaptor	13-28	16.9-37.1
4011	5/16-18 x 1-1/4 Cap Screw	Adaptor to Case	21-23	26.8-28.2
0000100001	5/16-18 x 1-3/8 Hex Head Bolt	Pump/No Adaptor	11-23	11.0-28.0
0000444001	3/8-18 Dry Seal Plug	Case-Plug	11-23	11.0-28.0
0000444001	1/8-27 Dry Seal Plug	Case-Plug	1-12	1.9-16.0
100000000001	5/16-18 x 1-3/8 Hex Head Bolt	Pump/Bolt	11-23	11.0-28.0
100400000000	Wiper/Tube	Filter Tube	10-60	13.0-79.2
100000000001	1-20 Hex Nut	Output Shaft	100-200	135.8-268.2
10-05-145-024	1-20 Hex Nut	Output Shaft	100-200	135.8-268.2

MISCELLANEOUS SPECIFICATIONS

TRANSMISSION OIL WEIGHT

10-04/10-08 Models 100 LBS./45.2 Kg
 10-05/10-09 Models 200 LBS./90.7 Kg

OIL - TYPE

—Delco/RV Transmission Only

Automatic Transmission Fluid

3 U.S. Quarts (approximate) (2.8 L)

Oil capacity is dependent upon transmission and oil cooler hook-up.

