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Tractors
1290 / 1390

Operator's Manual

9-9202

CASE

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MAINTENANCE

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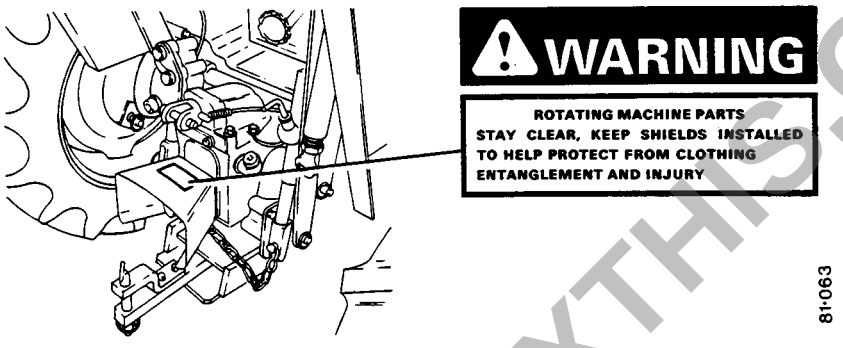


FIGURE 17.

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TRAVEL SPEED CHART

1390 HYDRA-SHIFT TRACTOR

10/49 RATIO FINAL DRIVES

TYRE SIZES: 16.9/14-34, 13.6/12-38, 18.4/15-34

AVERAGE ROLLING RADIUS 735 mm (29 in)

LEVER POSITION		Gearbox Ratio	Overall Ratio	700 r/min		1100 r/min		1800 r/min		2050 r/min		2200 r/min	
Range	Hydra-Shift			mile/h	km/h	mile/h	km/h	mile/h	km/h	mile/h	km/h	mile/h	km/h
1	1	12.108	364.44	0.3	0.5	0.5	0.8	0.8	1.4	1.0	1.6	1.0	1.7
1	2	8.859	266.66	0.4	0.7	0.7	1.1	1.2	1.9	1.3	2.1	1.4	2.3
1	3	6.811	205.00	0.6	0.9	0.9	1.5	1.5	2.4	1.7	2.8	1.8	3.0
1	4	4.983	150.00	0.8	1.3	1.3	2.0	2.1	3.2	2.4	3.8	2.5	4.0
2	1	4.512	135.82	0.9	1.4	1.4	2.2	2.3	3.7	2.6	4.2	2.8	4.5
2	2	3.302	99.38	1.2	1.9	1.9	3.1	3.1	5.0	3.6	5.7	3.8	6.1
2	3	2.538	76.40	1.6	2.5	2.5	4.0	4.0	6.5	4.6	7.4	5.0	8.0
2	4	1.857	55.90	2.2	3.5	3.4	5.4	5.5	8.9	6.3	10.2	6.8	10.9
2	1	1.914	57.62	2.1	3.4	3.3	5.3	5.4	8.6	6.1	9.8	6.6	10.6
3	2	1.401	42.16	2.9	4.6	4.5	7.2	7.3	11.8	8.4	13.5	9.0	14.4
3	3	1.077	32.41	3.7	6.0	5.8	9.4	9.6	15.4	10.9	17.5	11.7	18.8
3	4	0.788	23.72	5.1	8.2	8.0	12.8	13.0	21.0	14.9	23.9	16.0	25.7
R	1	4.353	131.03	0.9	1.5	1.4	2.3	2.4	3.8	2.7	4.3	2.9	4.6
R	2	3.185	95.87	1.3	2.0	2.0	3.2	3.2	5.2	3.7	5.9	4.0	6.4
R	3	2.449	73.70	1.6	2.6	2.6	4.1	4.2	6.8	4.8	7.7	5.1	8.2
R	4	1.792	53.93	2.2	3.6	3.5	5.6	5.7	9.2	6.5	10.5	7.0	11.3

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TRAVEL SPEED CHART

SYNCHROMESH TRACTOR
TYRE SIZES: 1390 — 13.6/12 – 38
16.9/14 – 34

10/49 RATIO FINAL DRIVES

AVERAGE ROLLING RADIUS 725 mm (28.6 in)

Range Levers	Gear Lever	Gearbox Ratio	Overall Ratio	700 r/min		1100 r/min		1800 r/min		2050 r/min		2200 r/min	
				mile/h	km/h	mile/h	km/h	mile/h	km/h	mile/h	km/h	mile/h	km/h
1	1	11.312	340.50	0.4	0.6	0.6	0.9	0.9	1.4	1.0	1.6	1.1	1.8
1	2	6.820	205.27	0.6	0.9	0.9	1.5	1.5	2.4	1.7	2.7	1.8	2.9
2	1	5.671	170.70	0.7	1.1	1.1	1.8	1.8	2.9	2.0	3.3	2.2	3.5
3	1	4.454	134.07	0.9	1.4	1.4	2.2	2.3	3.7	2.6	4.2	2.8	4.5
1	3	3.951	118.91	1.0	1.6	1.6	2.5	2.6	4.2	2.9	4.7	3.2	5.1
2	2	3.419	102.92	1.2	1.9	1.8	2.9	3.0	4.8	3.4	5.5	3.6	5.8
3	2	2.685	80.82	1.5	2.4	2.3	3.7	3.7	6.1	4.3	7.0	4.6	7.1
4	1	2.233	67.21	1.8	2.8	2.8	4.5	4.5	7.3	5.2	8.4	5.6	9.0
2	3	1.981	59.61	2.0	3.2	3.1	5.0	5.0	8.7	5.8	9.4	6.3	10.1
3	3	1.556	46.82	2.5	4.1	4.0	6.4	6.4	10.5	7.4	12.0	8.0	12.9
4	2	1.346	40.52	2.9	4.7	4.6	7.4	7.4	12.2	8.6	13.9	9.2	14.9
3	3	0.780	23.47	5.1	8.2	8.0	12.8	13.8	21.0	14.9	23.9	16.0	25.7
1	R	6.868	206.73	0.6	0.9	0.9	1.5	1.5	2.4	1.7	2.7	1.8	2.9
2	R	3.443	103.64	1.2	1.8	1.8	2.9	2.9	4.8	3.4	5.4	3.6	5.8
3	R	2.704	81.40	1.5	2.4	2.3	3.7	3.7	6.1	4.3	6.9	4.6	7.4
4	R	1.356	40.81	2.9	4.7	4.6	7.4	7.4	12.1	8.6	13.8	9.2	14.8

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ENGINE

WARNING: Before starting the engine, study the Operator's Manual safety messages.
Read all safety signs on the tractor.
Clear the area of other persons.
Learn and practice safe use of controls before operating.
It is your responsibility to understand and follow manufacturer's instructions on tractor operation and service and to observe the laws and regulations in your area.

Before Starting The Engine

Before starting the engine for the first time and before each operating period, do the following:

1. Make sure there is enough fuel of the correct grade in the tanks.
2. Check all oil and fluid levels and add oil or fluid as necessary.
3. Check for leaks.
4. Check the tension of fan belt.
5. Remove any water or dirt from the fuel pump water trap.
6. Check the tyre pressures.
7. Make sure that the PTO safety guard is correctly installed and that the PTO is disengaged.
8. Make sure that you know how to stop the engine.

NOTE: *These operations are part of the 10 hour/daily inspection (see page 126).*

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Multi-Speed PTO

This PTO has a 6 spline output shaft. Select high or low range to get 1000 r/min or 540 r/min output shaft speed.

The PTO clutch must be disengaged before engaging or disengaging the PTO.

Move the PTO selector lever fully forward or fully rearward to engage the PTO. The PTO will be disengaged when the lever is in the centre position.

Use the table below to get the required PTO output shaft speed and lever position.

CAB TRACTORS

TRACTOR MODEL	RANGE	PTO SPEED	REQUIRED ENGINE SPEED	LEVER POSITION
1290	HIGH	1000 r/min 540 r/min	2000 r/min 1100 r/min	FORWARD
	LOW	540 r/min	1800 r/min	REARWARD
1390	HIGH	1000 r/min 540 r/min	2000 r/min 1100 r/min	REARWARD
	LOW	540 r/min	2000 r/min	FORWARD

TRACTORS WITHOUT CAB

TRACTOR MODEL	RANGE	PTO SPEED	REQUIRED ENGINE SPEED	LEVER POSITION
1290	HIGH	1000 r/min 540 r/min	2000 r/min 1100 r/min	REARWARD
	LOW	540 r/min	1800 r/min	FORWARD
1390	HIGH	1000 r/min 540 r/min	2000 r/min 1100 r/min	FORWARD
	LOW	540 r/min	2000 r/min	REARWARD

NOTE: *Use the 540 r/min PTO speed in the HIGH range for low power implements ONLY. See your David Brown dealer for details.*

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SERVICE CHART: TRACTORS WITHOUT CAB

Ref Number	Service Points	No. of Points	Apply Grease	Apply Oil	Remove Fluid	Check	Clean	Change	Frequency
30.	Engine Oil	1						X	⬡
31.	Final Drive Oil Level	2				X			
32.	Lower Links	2	X				X		100 hours
33.	Engine Oil Filter	1						X	△ 200 hours
34.	Transmission Oil Filter	1						X	□ 400 hours
35.	Injectors	6				X			
36.	Valve Clearances	12				X			
37.	Fan and Alternator Belts	2				X			
38.	Fuel Filters	2						X	
39.	Air Cleaning Element	2				X	X		
40.	Power Steering Oil Reservoir	1						X	
41.	External Nuts and Bolts					X			
42.	Operator's Seat and Seat Belt	1				X			
43.	Clutch Cross Shaft *(Two Operations of a Grease Gun ONLY)*	2	X						
44.	Transmission Oil	1						X	■ 800 hours
45.	Final Drive Oil	2						X	
46.	Coolant	1						X	
47.	Front Wheel Bearings	2				X			
48.	Battery — Low Maintenance Type	1				X			

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SERVICE CHART: 4WD TRACTORS — CARRARO FRONT AXLE

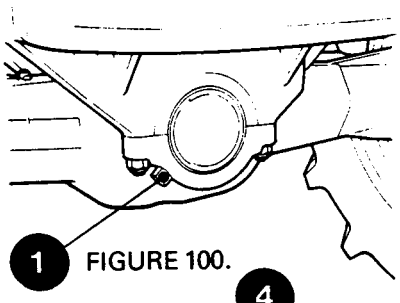


FIGURE 100.

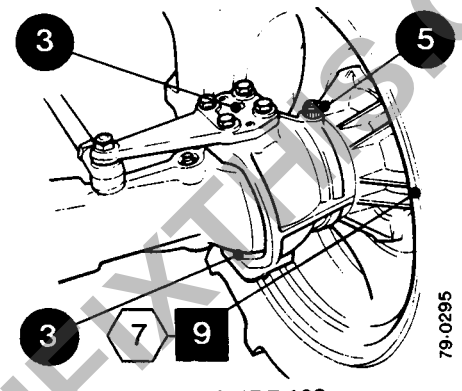


FIGURE 102.

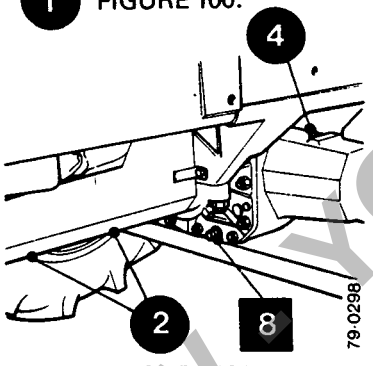


FIGURE 101.

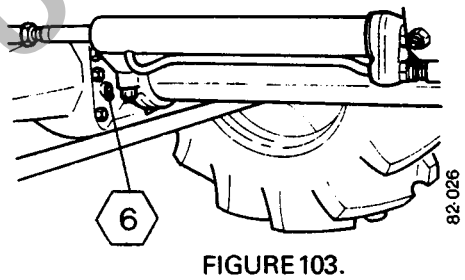


FIGURE 103.

Ref Number / Service Points	No. of Points	Apply Grease	Apply Oil	Remove Fluid	Check	Clean	Change	Frequency
1. Pivot Bushes: 4WD	2	X						● 50 hours
2. Splined Sleeve: 4WD	2	X						
3. Stub Axles: 4WD	4	X						
4. Axle Breather: 4WD	1					X		
5. Front Hub Breather: 4WD	2					X		
6. Differential Oil Level: 4WD	1				X			⬡ 100 hours
7. Front Hub Oil Level: 4WD	2				X			
8. Differential Oil: 4WD	1						X	■ 800 hours
9. Front Hub Oil: 4WD	2						X	

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Power Take-Off (PTO)

SINGLE SPEED PTO			
TRACTOR MODEL	PTO SPEED	REQUIRED ENGINE SPEED	NUMBER OF SPLINES
1290	540 r/min	1800 r/min	6
1390	540 r/min	2000 r/min	6

MULTI-SPEED PTO				
TRACTOR MODEL	RANGE	PTO SPEED	REQUIRED ENGINE SPEED	NUMBER OF SPLINES
1290	HIGH	1000 r/min	2000 r/min	6
		*540 r/min	1100 r/min	6
	LOW	540 r/min	1800 r/min	6
1390	HIGH	1000 r/min	2000 r/min	6
		*540 r/min	1100 r/min	6
	LOW	540 r/min	2000 r/min	6

NOTE: *Use the 540 r/min PTO speed in the HIGH range for low power implements ONLY.*
See your David Brown dealer for details.

REVERSIBLE SHAFT PTO			
TRACTOR MODEL	PTO SPEED	REQUIRED ENGINE SPEED	NUMBER OF SPLINES
1390	540 r/min	2050 r/min	6
	1000 r/min	2050 r/min	21

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7. Removing Air from the Fuel System

After you have replaced the fuel filters it is necessary to remove air from the fuel system. Follow this procedure:

Make sure there is a minimum of 9 litres (2 gal) of fuel in the tank.

Clean the area around the vent plugs A, E and F.

Loosen the vent plug A on the filter housing.

Operate the hand priming lever D until fuel is flowing freely, then tighten the vent plug.

Loosen the two vent plugs E and F on the fuel injection pump.

Operate the hand priming lever until fuel is flowing freely, then tighten the vent plugs.

Loosen the injector pipes at the connection G.

Move the engine stop control out of the STOP position and the hand throttle lever to the maximum speed position.

Operate the starter until you can see fuel at all the loose connections. Release the starter, then tighten the connections.

DO NOT TIGHTEN THE CONNECTIONS WHEN THE STARTER IS OPERATING.

KEEP CLEAR OF THE ROTATING FAN AND BELTS.

WARNING

ROTATING FAN AND BELTS CONTACT CAN INJURE KEEP CLEAR

Start the engine and check for leaks.

WARNING: The fuel system of this tractor operates at a very high pressure. Fuel at very high pressure can go through the skin and destroy tissue. This can cause serious injury. Always use a guard when making adjustments to injection equipment. Use a piece of thick card or wood to check for leaks. Never use your hands.

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